



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY
STONE ENERGY CORPORATION FOR AN
EXCEPTION TO 39 CSR § 1-4.2 REGARDING
THE DRILLING OF THE WELLS IDENTIFIED AS
THE STARKWEATHER 11HU AND
STARKWEATHER 13HU TO BE LOCATED
IN GREEN DISTRICT, WETZEL COUNTY, WEST VIRGINIA

DOCKET 232
CAUSE NO. 222
ORDER NO. 1

REPORT OF THE COMMISSION

This cause came before the Conservation Commission of the State of West Virginia commencing at 10:00 o'clock a.m. on July 23, 2015, at the offices of the Oil and Gas Conservation Commission, 601 57th Street, S.E., Charleston, West Virginia 25304, after giving notice as required by law, on the application of Stone Energy Corporation for an exception to the spacing requirements of W. Va. C.S.R. § 39-1-4.2 with respect to wells identified as the Starkweather 11HU and 13HU.

Present on behalf of the Commission was Barry Lay, Chairman; Anthony Gum, Commissioner; Robert Radabaugh, Commissioner; James Martin, Commissioner; Lisa McClung, Commissioner; Gregory Foster, Assistant Attorney General; and Cindy Raines, Staff.

Appearances were entered by Timothy M. Miller, of the firm Babst, Calland, Charleston, West Virginia, as counsel for Stone Energy Corporation ("Applicant"); Roger L. Cutright, Land Manager and Special Counsel, Stone Energy; Diane Marcotte Corwyn, Operations Manager,

Stone Energy; and Clayton Ferguson, Asset Coordinator, Stone Energy. No other parties or individuals entered an appearance.

The Chairman submitted into the record as Exhibit 1, the Notice of Hearing and Certified Return Receipts; Exhibit 2, the Certification of open meetings; Exhibit 3, the Class II Legal Advertisement and Confirmation; Exhibit 4, the November 24, 2014 Supplemental Application for an exception to the 3,000 spacing requirements, and request for hearing; and Exhibit 5, the Application for spacing exception for the Starkweather 11HU and 13HU wells. Upon motion, without objection, the exhibits were admitted into evidence.

Counsel for the Applicant proffered as Exhibit 6, an Amended and Supplemental Application dated July 22, 2015; as Exhibit 7, a July 22, 2015 letter agreement between SWN Production Company; and as Exhibit 8, the resume of Diane M. Corwyn, all of which were admitted into evidence, without objection.

Roger L. Cutright was called as the first witness on behalf of the Applicant and gave testimony that included a summary of his education and experience in land matters, and he explained the reason for the submission of the July 22, 2015 Amended and Supplemental Application, Exhibit 6, was to correct a typographical error in the original Application, to reflect a proposed unit size of 541.24 acres.¹

Mr. Cutright explained the Amended and Supplemental Application, Exhibit 6, Paragraph No. 4, was also amended to reflect planned 600 foot lateral offsets rather than 500 foot offsets, and the signed Verification of Roger L. Cutright was attached.

Mr. Cutright further explained Exhibit 7, the letter agreement between SWN Production Company and the Applicant, was submitted to provide written confirmation of an agreement between the parties whereby SWN Production Company would not and did not have any protest

¹ The plats and exhibits submitted with the original Application and the Supplemental Application show the correct unit size of 541.24 acres, but the original Application form had a typographical error indicating the unit size as 640 acres.

to or objection to the application given that the parties had intentions of entering into a trade agreement or other contractual arrangement to allow the operation of the well by the Applicant.

Mr. Cutright further testified regarding the proposed size and configuration of the unit; the lateral offset and unit boundaries and that there were no deep wells within 3,000 feet of the proposed wells. Further, Mr. Cutright testified this was a formation of a voluntary unit, without any objections, and the existing pad location for the previously permitted 9HU, will be utilized for the 11HU and 13HU, thus there will be no significant, additional construction activities for pad construction and the Applicant intends to use existing well roads and facilities and infrastructure to minimize the surface disturbance. Mr. Cutright testified from a Land Department standpoint, the granting of the exceptions would result in less surface disturbance, less traffic on roads, other logistical and infrastructure efficiencies to allow the maximum recovery of the gas, and prevent waste. After questioning by members of the Commission, the Applicant then called its second witness, Diane M. Corwyn, Operations Manager for Stone Energy, whose resume including a detailed description of her experience in reservoir engineering, management and operation of horizontal wells, and knowledge of the proposed unit in operations was of record as Exhibit 8.

Ms. Corwyn testified to, among other things, an explanation of the Applicant's experience in drilling horizontal wells in the Marcellus, and a Point Pleasant formation deep well operated by Stone Energy called the Pribble 6H unit located in Wetzel County. The target formation is the Point Pleasant, which is below the top of the Onondaga formation, therefore a deep well. Ms. Corwyn testified regarding the proposed length and location of laterals as reflected in the Application plat submitted. Ms. Corwyn testified regarding the reservoir characteristics, including the depth and thickness of the target formation, and explained the proposed lateral offsets and distance from the unit boundaries was determined based on decline curve analysis and other data and information, including core data. Mr. Corwyn testified the

estimated porosity of the target formation was approximately 7.0; the permeability was 2.0 nanodarcy, and based on other technical and scientific considerations Stone requests approval of the spacing exception and configuration of the unit, as proposed. After further and additional questioning by counsel and by the Commissioners, the Applicant submitted the case for decision by the Commission.

The Commission then adjourned to Executive Session to consider the Application.

After Executive Session, and on the record, a Motion was made by Commissioner Radabaugh to approve the Application, as amended, for an exception to the 3,000 foot spacing requirement set forth in W. Va. C.S.R. 39-1-4.2, to allow the drilling of the units as proposed, with spacing of 1,200 feet between laterals. The Motion was seconded by Commissioner Gum, and a vote was taken and the motion was unanimously approved. Thereupon, the Commission makes the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT

1. A hearing before the Commission members Barry Lay, Chair, Robert Radabaugh, Anthony Gum, and ex officio members James Martin and Lisa McClung, as proxy for Randy Huffman, with Gregory Foster, Counsel to the Commission and Cindy Raines, Staff, was duly and properly convened, upon proper written and public notice before a quorum of the Commission. Notice was also published in a newspaper of general circulation in the county in which the property and units are located, all as required by West Virginia Code § 22C-9-5.
2. The proposed unit wells to be drilled are to be completed below the top of the Onondaga formation and therefore are deep wells within the meaning of West Virginia Code § 22C-9-1, and subject to the jurisdiction of the Commission.
3. The Applicant is an operator within the meaning of W. Va. Code § 22C-9-2(a)(4), and an experienced, qualified operator of horizontal wells and units.

4. The Applicant has submitted all the necessary information, documents and supporting exhibits as required by Statute and the Rules the Commission and provided satisfactory and sufficient proof for the Commission to make an informed decision upon the Application and motion for an exception to the spacing requirements of W. Va. C.S.R. 39-1-4.2, with respect to the Starkweather 11HU and 13HU wells.

5. The unit as configured and requested is reasonably necessary to prevent waste, promote correlative rights, and will encourage and foster and promote the exploration, development, production and utilization of the oil and gas resources within the target formation, without waste.

6. The proposed wells are at least 400 feet from the unit and lease boundaries.

7. The unit described in the Application, as amended, should be and hereby is approved for the formation of a deep well unit for those depths and formations lying from 100 feet above the top of the Utica formation to 100 feet from the top of the Trenton Limestone, for the drilling of the horizontal wells as applied for, with the primary target of the Point Pleasant formation. The Applicant is authorized and granted the right to drill, complete and operate the Starkweather 11HU, and 13HU with an exception granted to the spacing requirements so that laterals may be closer than 3,000 feet in distance.

8. The proposed unit is a voluntary unit, without pooling of unleased interests or unknown and missing heirs and accordingly, and without objection or protest by any entities or individuals, the Commission finds the Application, as amended, proper in all respect and upon motion the application and exception were approved unanimously.

CONCLUSIONS OF LAW

1. W. Va. C.S.R. § 39-1-4.2 requires that all deep wells drilled shall be not less than 3,000 feet from a permitted deep well location, and that W. Va. C.S.R. § 39-1-4.3 allows for an exception to that requirement upon notice and hearing.
2. That due notice of time, place and purpose of the hearing has been given in all respects as required by law.
3. Pursuant to Chapter 22C, Article 9 of the West Virginia Code, as amended, the Commission has jurisdiction over the subject matter embraced in the said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order, and that a quorum of the Commission was present at the hearing.
4. In order to grant the well work permit for the proposed Starkweather 11HU and 13HU wells, a spacing variance is required pursuant to W. Va. C.S.R. § 39-1-4.3.
5. The requested variance and location of the Starkweather 11HU and 13HU are within 3,000 feet of the Starkweather 9HU and to each other and it is necessary to promote the efficient development of the oil and gas resource, prevent waste, and encourage the maximum recovery of the oil and gas reserves in that reserve to grant the application and exception.

ORDER

Upon presentation and consideration of the evidence before the Commission on July 23, 2015, and based upon the Findings of Fact and Conclusions of Law contained herein, the Commission hereby grants the exception and variance to the requirements of W. Va. C.S.R. § 39-1-4.2, with respect to the Starkweather 11HU and 13HU wells, and permits the Applicant to drill the Starkweather 11HU and 13HU within 3,000 feet of the Starkweather 9HU and to each other. Within 90 days of completion of each well the Applicant is directed to provide well records and drilling logs to the West Virginia Department of Environmental Protection, Oil and Gas Conservation Commission. For purposes of this Order, the completion of each well is the

Held for
off or signed

Emailed

Trade agreement

And Date order

11/2

Permitting said
Stone reg'd Starkweather

~~Back~~

Returned

Stone only reg in apps he
retd 006 will not
issue app due to
SWN -
all numbers
retd

Barry will not
sign - apps
were returned
per operator

12/9/15

All Starkweather
apps 9, 11, 13

were returned
per oper request
on 10/30/2015

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

IN THE MATTER OF THE REQUEST BY
STONE ENERGY CORPORATION FOR AN
EXCEPTION TO RULE 39CSR1-4.2
REGARDING THE DRILLING OF THE
WELLS IDENTIFIED AS THE
STARKWEATHER 11HU AND STARKWEATHER
13HU TO BE LOCATED IN GREEN
DISTRICT, WETZEL COUNTY, WEST VIRGINIA.

DOCKET NO. 232
CAUSE NO. 222

Transcript of proceedings had on the 23rd day of
July, 2015, at 10:00 a.m., at the Department of
Environmental Protection located at 601 57th Street,
Southeast, Charleston, West Virginia, pursuant to notice.

BEFORE: Barry K. Lay, Chairman
Robert Radabaugh, Commissioner
Anthony Gum, Commissioner
James Martin, Commissioner
Lisa McClung, Commissioner

Greg Foster, Assistant Attorney General

Cindy Raines, Staff

BONNIE K. WOLFE
Certified Court Reporter
1211 Ellen Drive
South Charleston, West Virginia 25303
(304) 744-4318

APPEARANCES:

ON BEHALF OF APPLICANT, STONE ENERGY:

Timothy Miller, Esquire
 Babst Calland
 300 Summers Street, Suite 100
 Charleston, West Virginia 25301

INDEXAPPLICANT'S WITNESSESDIRECTEXAMINATION

Roger L. Cutright

7

14 (Gum)
 16 (Lay)
 17 (Martin)
 19 (McClung)

Diane M. Corwin

20

28 (Radabaugh)
 31 (Lay)
 35 (Martin)
 37 (Lay)

EXHIBITSIDENTIFIEDRECEIVED

Nos. 1-5

3

3

No. 6

7

20

No. 7

11

20

No. 8

21

21

Errata

42

1 CHAIRMAN LAY: Before the West Virginia Oil and
2 Gas Conservation Commission of the State of West Virginia
3 in the matter of the request by Stone Energy Corporation
4 for an exception to Rule 39CSR1-4.2 regarding the drilling
5 of the wells identified as the Starkweather 11HU and the
6 Starkweather 13HU to be located in Green District, Wetzel
7 County, West Virginia.

8 This is Docket No. 232, Cause No. 222. Let
9 the record show that present are members of the
10 Commission, James Martin, Lisa McClung, Robert Radabaugh,
11 Anthony Gum, Barry Lay, counsel Greg Foster, and Cindy
12 Raines of Staff.

13 I'd like to place of record a copy of the
14 Notice of Hearing and certified receipt as Exhibit 1, copy
15 of the confirmation of open meeting as Exhibit 2, a Class
16 II legal advertisement and confirmation as Exhibit 3, the
17 request for hearing dated 11/24/2014, and finally a copy
18 of the applications for the Starkweather 11HU and 13HU.

19 (WHEREUPON, said documents were
20 identified as Exhibits Nos. 1-5 and
21 were received in evidence.)

22 CHAIRMAN LAY: At this time, the Commission will
23 take appearances.

24 MR. MILLER: My name is Timothy Miller. I'm

1 with the firm of Babst Calland here in Charleston,
2 representing Stone Energy. Have three individuals from
3 Stone Energy with me today, expect two of them to testify.
4 And I'll just ask them to introduce themselves.

5 MR. CUTRIGHT: My name is Roger Cutright. I'm
6 the Land Manager and Special Counsel for Stone Energy.

7 MR. CORWIN: I'm Diane Corwin. I'm the
8 Operations Manager for Stone.

9 MR. FERGUSON: Glen Ferguson. I'm the Asset
10 Coordinator.

11 MR. MILLER: With that said, Mr. Chairman, I've
12 got a couple housekeeping issues and some corrections to
13 some exhibits, if I could go ahead and address those
14 first.

15 CHAIRMAN LAY: Okay. Yes.

16 MR. MILLER: We have with us-- First of all, we
17 do have-- If the members want it, we have six additional
18 copies of the application packet itself.

19 If the individual members of the Commission
20 want to have a work copy to look at while we're here, we'd
21 be happy to tender those to you.

22 COMMISSIONER McCLUNG: I'll take a working copy.

23 MR. MILLER: If I may?

24 CHAIRMAN LAY: Yes. I don't know. Is there

1 something changed from what we have?

2 MR. MILLER: Not as what-- Well, there is going
3 to be something changed, a supplement to this--

4 CHAIRMAN LAY: Okay.

5 MR. MILLER: --but if they want one of the
6 original.

7 CHAIRMAN LAY: If you would, why don't you just
8 give everyone one then, if you have copies.

9 MR. MILLER: This is the original application.

10 CHAIRMAN LAY: This is not going to be a--

11 MR. MILLER: Not to be marked.

12 CHAIRMAN LAY: --application. This is just a
13 work product.

14 MR. MILLER: Then I do have six copies of what
15 I'm calling-- It's under a cover letter dated July 22,
16 2015, from Mr. Cutright to the Commission. It is attached
17 as an Amended and Supplemental Application for Spacing to
18 do two things.

19 The first item in it, paragraph three of
20 the original application to decide if the unit size
21 projected would be 640 acres. They have since that time
22 amended that down, and the unit size they are proposing
23 now is 541.24 acres.

24 Then in paragraph four, the amendment as

1 well listed lateral offsets of 500 feet, and they want to
2 propose that they be at 600 feet. So let me submit these
3 to you, if I can, or have it marked by the court reporter.

4 CHAIRMAN LAY: What was the acreage? I'm sorry.

5 MR. MILLER: It was 541.24.

6 CHAIRMAN LAY: Are these all in the same unit?

7 MR. MILLER: Yes.

8 CHAIRMAN LAY: Okay.

9 MR. MILLER: Yeah. It would have no effect on
10 the people noticed or the leases or any of the offset
11 operators. It would all be the same.

12 The other things was the original
13 application submitted to you had a verification attached,
14 but it was not signed by Mr. Cutright.

15 So we have a-- It signed the application
16 but not the separate verification form. So I had him sign
17 the verification form and, again, have it notarized.
18 That's the only other change.

19 CHAIRMAN LAY: Okay.

20 MR. MILLER: So if I could, I will just tender
21 these to you. I guess I would ask that this be marked as
22 Exhibit No. 6.

23 CHAIRMAN LAY: Any objections to entrance as
24 Exhibit No. 6? Okay.

1 (WHEREUPON, said document was
2 identified as Exhibit No. 6.)

3 CHAIRMAN LAY: Any other issues?

4 MR. MILLER: That's it for right now. If I
5 could, I'd go ahead and call as our first witness Mr.
6 Roger Cutright.

7 CHAIRMAN LAY: Mr. Cutright, do you want to let
8 the court reporter swear you, please?

9 (Witness sworn.)

10 THEREUPON came

11 ROGER L. CUTRIGHT

12 called as a witness by the Applicant herein, being first
13 duly sworn according to law, testified as follows:

14 DIRECT EXAMINATION

15 BY MR. MILLER:

16 Q Mr. Cutright, if you could, please, again state
17 your full name and your job title.

18 A Roger Lee Cutright. I'm the Land Manager and
19 Special Counsel for Stone Energy.

20 Q If you could, just give us a brief educational
21 history.

22 A I've been a licensed attorney for a little bit
23 over twenty years. And during that period of time, I've
24 primarily practiced in the mineral industry with more

1 focus on the oil and gas industry.

2 Several years ago, I went in-house with
3 Stone Energy as its Land Manager and Special Counsel.
4 Prior to that period, I worked in the mineral industry and
5 the coal industry.

6 Q As Land Manager in your duties for Stone, have
7 you had responsibilities in connection with the evaluation
8 of title matters, preparation of permits for drilling of
9 wells in the State of West Virginia?

10 A I have.

11 Q And does that include drilling of horizontal
12 wells in the State of West Virginia?

13 A Yes.

14 Q In connection with this case, it's correct
15 you're the one that signed the applications and the
16 verifications that have been submitted to the Commission
17 for the exception we're requesting. Correct?

18 A It is correct.

19 Q And you're familiar with the context--

20 A I am.

21 Q --of that package?

22 A I am.

23 Q All right. In this case, you're asking for an
24 exception for spacing on the Starkweather pad. Is that

1 correct?

2 A That's correct.

3 Q And if I could for the Commission, I want to
4 clarify something. You want an exception for the
5 Starkweather 11HU and Starkweather 13HU. There's actually
6 projected to be three wells on this pad.

7 The first one, obviously, doesn't need an
8 exception because it will be the only well. But the next
9 two will. So there's really just going to be three wells,
10 the Starkweather 9HU, 11HU and 13HU. Mr. Cutright, have I
11 stated that correctly?

12 A That's correct.

13 CHAIRMAN LAY: Have we already issued the permit
14 or issued approval for the permit for No. 9? Okay.

15 BY MR. MILLER:

16 Q Would you please, if you could, just review
17 briefly. Is this a new pad to be constructed or will
18 these three wells be drilled on an existing pad?

19 A The Starkweather pad is an existing pad that has
20 previously permitted Marcellus wells.

21 Q Will you be needing to construct any new pad or
22 expand the pad?

23 A Not at this time.

24 Q The three wells that are going to be on this

1 same pad, will they be accessed by the same road, access
2 road?

3 A The access roads and the base facilities are
4 already in place.

5 Q There were plats included in the application
6 process that showed the location of the access road to the
7 well. You've reviewed all that, and that is an accurate
8 depiction of what the proposed drilling site and
9 construction will be at the Starkweather pad. Correct?

10 A Yes. To the best of my knowledge, yeah.

11 Q Are there any other deep wells? And by that, I
12 mean any other well that is deeper than the top of the
13 Onondaga formation within three thousand feet of the
14 proposed Starkweather unit?

15 A Not that I'm aware of or of record.

16 Q Are you aware of any deep wells within one mile
17 of the Starkweather pad?

18 A Again, not that I'm aware of or of record.

19 Q You have had surveyors, and permit applications
20 have been submitted. And you've had surveyors go out, and
21 they've proposed plats and surveys that have confirmed
22 that. Is that correct?

23 A That's correct.

24 Q Did you have conducted a title examination to

1 determine all the mineral owners in the proposed unit?

2 A We have.

3 Q And is this to be a voluntary unit or is there
4 any pooling of interest that are unleased involved in this
5 case?

6 A This is strictly a voluntary unit.

7 Q And in the application package, there's various
8 lists of all the lessees tied to tax map books, parcel
9 owners. Correct?

10 A That's correct.

11 Q Are you aware of any objections to the spacing
12 exception request at this stage?

13 A I am not.

14 Q Now, we also brought another document with us.
15 If I could, I'll have it marked as Exhibit No. 7. It is a
16 letter dated July 22, 1915, from Southwestern Energy
17 Production Company, SWN Production Company, LLC. It is
18 addressed to Mr. Cutright.

19 I'll have him, if he could, maybe identify
20 and explain what it is and why we would tender it as an
21 exhibit today.

22 I'll first have her mark that as Exhibit 7.

23 (WHEREUPON, said document was

24 identified as Exhibit No. 7.)

1 BY MR. MILLER:

2 Q Mr. Cutright, would you please identify and
3 explain what the purpose of this letter is?

4 A SWN Production Company, which I commonly refer
5 to as Southwestern, is a successor in interest to
6 Chesapeake of a certain lease or a certain couple leases
7 that are within this unit. We've previously had
8 agreements with Chesapeake to do either these exchange
9 agreements or sometimes we do JOA's with them.

10 Due to the timing of Southwestern
11 purchasing the interest of Chesapeake, we have entered
12 into a new, if you will, letter of intent to trade this
13 tract that's in this unit with Southwestern.

14 The purpose of this letter is just to put
15 of record that we do have a pending trade agreement with
16 Southwestern, not only for this tract, but for several
17 other tracts.

18 And to clarify, what we've agreed to do and
19 what they have agreed to do, is we would like to get the
20 exception, but we're not going to proceed with any further
21 development of that tract until the trade agreement is
22 concluded here in the, hopefully, weeks ahead.

23 Q So to the extent Chesapeake was a lessee or had
24 a lessee's interest in the unit which has now been

1 transferred to Southwestern, which is stated in the letter
2 we've tendered as Exhibit 7, they have no objection to and
3 wish to proceed with the exception being granted. Is that
4 correct?

5 A Subject to me placing these statements of record
6 and putting this document of record, they have no
7 objections to us getting the spacing exceptions.

8 Q And again, I noticed in the exhibit packet, I
9 believe you submitted, you have the surface owner consent
10 easement for the location, pad location. Correct?

11 A That is correct.

12 Q And before you took the stand, I had mentioned
13 that the unit size has been reduced to 541.24 acres. Is
14 that correct?

15 A That's correct.

16 Q Based on this unit size and configuration that
17 you have proposed, will any of the surface locations of
18 the wells, either the 9H, the 11H or the 13 or the landing
19 point or heel, if you want to call it that, or any portion
20 of the later or any portion of the bottom hole, will that
21 be at least 400 feet from the unit boundary?

22 A Yes.

23 Q If you could from a land department standpoint,
24 if you could maybe go over a few reasons why you believe

1 the exception should be granted by the Commission.

2 A From the land perspective, every reason I would
3 come up with fall into probably the category of surface
4 disturbance. If we don't have this exception, you would
5 need to drill more pad sites to develop the acreage
6 instead of just the one.

7 So the number of roads are reduced. The
8 amount of disturbed acres on the pad itself, the traffic
9 on the roads and all these sort of disturbances are
10 drastically minimized.

11 Q From a land perspective then, is it your
12 testimony that you believe the exception is necessary and
13 would in effect promote prevention of waste and the most
14 efficient development of the oil and gas within this
15 target area?

16 A That is correct.

17 MR. MILLER: I don't have any further questions
18 for this witness.

19 CHAIRMAN LAY: Questions from members of the
20 Commission?

21 EXAMINATION

22 BY COMMISSIONER GUM:

23 Q With the reduction in the unit size-- What was
24 the reason for the reduction in unit size from 600 or 541?

1 A The original unit configuration would have had
2 the wells situated in a particular manner. What we do as
3 a general rule is we go from that configuration, and then
4 we go out a certain number of feet to address projected
5 drainage areas.

6 The final three laterals, when you do that,
7 it comes up to 541 acres. I suspect, as we go back and
8 look at the original, the laterals were probably the
9 different length or configuration.

10 Q Is any of the old Chesapeake acreage within--
11 Because of this letter, are these laterals going to come
12 into contact with any of that acreage? They're telling
13 you, you know, we're not going to protest this, but let's
14 get a trade deal going before we do anything?

15 A Yes. The nature of the letter, of course, is to
16 confirm that they will either trade or participate in it.
17 We're anticipating a trade.

18 Q With the change of the unit, should there have
19 been an updated plat presented?

20 MR. MILLER: I can have him address it, if you'd
21 like. The plats are actually correct. They do show the
22 541 acres. The application said 640. So we have the
23 correct plats and surveys and correct acreage.

24 COMMISSIONER GUM: Okay.

1 MR. MILLER: We just misstated the acreage in
2 the application. is that correct, Mr. Cutright?

3 THE WITNESS: That's correct.

4 EXAMINATION

5 BY CHAIRMAN LAY:

6 Q I want to clarify on the plat-- I know we
7 discussed this earlier, but-- The actual-- I'm not sure
8 which page of the plat this is, page two of two. It
9 actually shows the off re-laterals and their total extent.
10 There is a green outlined box that designates the 400 foot
11 offset for the unit boundary.

12 A Correct.

13 Q Now, is that-- Is that the actual unit or is
14 there -- or are these particular leases with the hash-- I
15 guess my question is: Does the green outline depict the
16 actual unit boundary or does it extend beyond this green
17 box?

18 A Understand. The unit boundary is depicted by
19 that green hash line. I think page one of two up in the
20 right upper-hand corner is the list of tracts and their
21 unit contribution that adds up to 451.

22 Q And the-- I guess I would call it a dash with
23 three dots or three little dashes. That's the lease
24 boundary, your lease boundary?

1 A That would be the lease boundary that's
2 referenced on the table.

3 Q Okay.

4 A Yes, sir.

5 Q So the percentage of each tract included is
6 included on page one of that table as well?

7 A That is correct.

8 Q Probably not as germane to this, but do you plan
9 to drill any other horizontals in the Utica from this pad?

10 A I know that has discussed-- To say it's planned
11 as in the near term, I'd say probably not. But it is
12 certainly a possibility the way the pad is configured.
13 And I'd probably defer-- I'd probably have to ask
14 Ms. Corwin to give a more exact answer.

15 But I do know it's discussed. To say
16 planned might infer how soon. It's certainly a
17 possibility.

18 CHAIRMAN LAY: Okay. Any other questions?

19 EXAMINATION

20 BY COMMISSIONER MARTIN:

21 Q Mr. Chairman, I just want to make sure I
22 understand this agreement with SWN. So basically, there's
23 a voluntary unit that's been established.

24 A That's correct.

1 Q Right? It's been established. SWN controls
2 some of that acreage right now?

3 A That's correct.

4 Q Chesapeake could buy it for whatever they're
5 concerned with.

6 A Right.

7 Q So SWN-- This document that we have from them
8 is signed by both parties. It indicates that some trade
9 of some sort would happen that would allow that acreage to
10 come under Stone's control.

11 A That's correct.

12 Q Is that right?

13 A That's correct, sir.

14 Q So that's not been done yet?

15 A That's correct.

16 Q So you couldn't drill this well today?

17 A That is correct.

18 Q And the agreement, you said, hopefully would be
19 executed, I think you said, in hopefully a few weeks.
20 That's, I think, what you had indicated, something to that
21 effect.

22 A I did.

23 Q Is there a-- Do you have any closer history on
24 that? Probably as soon as possible to do?

1 A I'm anticipating, the amount of work product
2 we've already put into it and conversations that we've had
3 with SWN, it's most reasonable for me to foresee it would
4 be three weeks instead of three months.

5 The majority of the work has been done.
6 Just due to other people's work schedules and vacation
7 schedules, there's probably been more of a delay in the
8 last weeks than anything else.

9 CHAIRMAN LAY: Any other questions?

10 EXAMINATION

11 BY COMMISSIONER McCLUNG:

12 Q Just one. How long's the pad been there?

13 CHAIRMAN LAY: I'm sorry. I didn't hear the
14 question.

15 BY COMMISSIONER McCLUNG:

16 Q Is it existing? How long has the pad been
17 there?

18 A I'm going to have not a clear recollection.
19 Ms. Corwin will know exactly -- more exactly the date.
20 It's been, I would say, a couple of years, but I might
21 have missed it by a few months.

22 CHAIRMAN LAY: Anything else? Okay. The
23 witness may be excused then.

24 (Witness excused.)

1 CHAIRMAN LAY: I'd like to admit this as, what,
2 Exhibit 7?

3 MR. MILLER: Yes. We'd like to actually move
4 the admission of both Exhibits 6 and 7. Six was the
5 amended--

6 CHAIRMAN LAY: Okay.

7 MR. MILLER: --supplemental, and 7 was the SWN
8 letter.

9 CHAIRMAN LAY: We'll admit both exhibits.
10 (WHEREUPON, the documents previously
11 identified as Exhibits 6 and 7 were
12 received in evidence.)

13 MR. MILLER: I would call Diane Corwin as our
14 next witness.

15 (Witness sworn.)

16 THEREUPON came

17 DIANE CORWIN

18 called as a witness by the Applicant herein, being first
19 duly sworn according to law, testified as follows:

20 DIRECT EXAMINATION

21 BY MR. MILLER:

22 Q Your full name and job title, please?

23 A Diane Marcotte Corwin, Operations Manager for
24 Stone Energy.

1 Q Did I ask you to prepare a resume with a
2 complete history of your educational background and
3 experience?

4 A Yes. I did.

5 Q Does that appear to be an accurate summary of
6 your educational background and experience?

7 A Yes. It is.

8 MR. MILLER: If I could have that marked as
9 Exhibit 8, it might save us a little time.

10 (WHEREUPON, said document was
11 identified as Exhibit No. 8 and was
12 received in evidence.)

13 BY MR. MILLER:

14 Q Ms. Corwin, I guess going backward in time,
15 starting at the second page, kinda just real quickly,
16 we've got your summary here. You started out in 1980--
17 I'm sorry. --after receiving your Bachelor of Petroleum
18 Engineering in 1980 from LSU. Correct?

19 A Correct.

20 Q All right. Then what was your job first after
21 that?

22 A I started my career as a Reservoir Engineer for
23 Chevron out of New Orleans, Louisiana. I progressed into
24 production and drilling my first five years, and then I

1 eventually went on to work in asset management and
2 increase in responsibilities in the company in manager
3 positions. I worked for twenty-something years for
4 Chevron.

5 And then about twelve years ago, I moved to
6 West Virginia, and I started working in this basin with
7 the shallow production, the Devonian shale production.
8 And then about eight years ago, I started getting into the
9 Marcellus and the Utica development.

10 Most recently in the last two years, I've
11 been working at Stone Energy as Operations Manager and
12 focusing on horizontal drilling and completion and also
13 the production of the wells. So I'm kind of responsible
14 for the pad construction, the road, producing of the wells
15 and the sub-surface and the surface management of the
16 asset.

17 Q As part of your job duties with Stone, are you
18 also involved in the evaluation and selection of the
19 target formation of reservoirs you're going to produce
20 from?

21 A Yes.

22 Q All right. So in this particular case, have you
23 been involved in the planning for the Starkweather 9HU,
24 11HU and 13HU wells?

1 A Yes. I have.

2 Q Involved in the evaluation of the reservoir and
3 the target formation?

4 A Yes.

5 Q All right. In connection with that work that
6 you have done, I'd like to ask you a few things about the
7 reservoir characteristics, if I could.

8 A Okay.

9 Q If you could, please-- Well, let's back up a
10 minute. Approximately, how many wells does Stone Energy
11 operate at this time?

12 A Currently, about 120.

13 Q Are those in the Appalachian Basin you're
14 referring to?

15 A Yes. It's a lot of Wetzel County.

16 Q All right. And are those drilled into the
17 Marcellus formation?

18 A All of them, except we have one Utica well.

19 Q All right. You have the one Utica well. Where
20 is that drilled?

21 A It's in Wetzel County, also.

22 Q What is the name of that well?

23 A Pribble 62HU.

24 Q That's P-r-i-b-b-l-e?

1 A Correct.

2 Q The Pribble well-- Approximately, how far is
3 the top hole location of the Pribble from the proposed
4 locations of the Starkweather?

5 A Eight miles.

6 Q All right. And how long has the Pribble well
7 been in production?

8 A Since the end of November/December of 2014, so
9 it's about eight months production.

10 Q What is-- For the Starkweather 9, 11 and 13,
11 what is the target formation you're seeking to produce
12 from?

13 A The Utica.

14 Q All right. In particular, is there an area
15 called the Physical therapy. Pleasant near the Utica?

16 A It's the Physical therapy. Pleasant. Yes.

17 Q All right. And this target formation you're
18 seeking to produce from, is it below the top of the
19 Onondaga formation?

20 A Yes.

21 Q It would be considered a deep well. Correct?

22 A Yes.

23 Q If you have the applications before you, can you
24 just briefly tell us the proposed length and location of

1 the laterals? I believe in the application package we
2 have the plats that show that. Is that correct?

3 A Correct.

4 Q If you could maybe, just give us a brief
5 overview of what the proposed plan is for the three wells.

6 A In general, the shape of the unit is a
7 rectangle. It's about 541 acres as previously stated. We
8 have three horizontal wells planned within that unit.

9 The approximate average length of the
10 laterals is about 6200 feet. The spacing between the
11 three branches are approximately 1200 feet. The outer
12 branches, the spacing is 400 feet from the unit boundary.

13 Q And again as Mr. Cutright said, these are all to
14 be drilled from an existing pad that you have Marcellus
15 wells on. Is that correct?

16 A It's a new pad that we just built within the
17 last year. There's no existing Marcellus wells drilled on
18 it yet. The pad is built to accommodate both Utica and
19 Marcellus wells.

20 Q In your opinion, is horizontal drilling from a
21 single pad the most efficient way to drain the waste?

22 A Yes. It is.

23 Q That's based on the training plus your
24 experience in operating horizontal wells in the basin. Is

1 that correct?

2 A Correct.

3 Q Can you explain, basically, the direction
4 azimuth for the proposed wells?

5 A The azimuth that we're planning on is 325
6 degrees. This is based on looking at what other operators
7 did in the higher and, also, what we did in our Pribble
8 6HU well.

9 CHAIRMAN LAY: I'm sorry. Would you repeat your
10 question again?

11 BY MR. MILLER:

12 Q Yeah. I just asked her if she could briefly
13 explain the direction of azimuth--

14 CHAIRMAN LAY: Okay.

15 BY MR. MILLER:

16 Q --of the proposed wells.

17 A Yeah.

18 Q All right. You've already explained the
19 distance between the laterals in the unit. If you could,
20 can you briefly describe the characteristics of the
21 Physical therapy. Pleasant formation?

22 A Currently, the target is about 11,700 feet as
23 far as the total depth. And then the formation is about
24 125 feet. Depth is, I believe-- The porosity is about

1 seven percent, and the permeability is about two
2 Nanodarcys.

3 Q Issues of the porosity and permeability, how did
4 you determine those? Is that based off your experience
5 with the Pribble?

6 A Yeah. It's based on the log data and the core
7 data that we had on the Pribble 6HU.

8 Q From your knowledge and based on the surveys you
9 had conducted, are you aware of any other deep wells that
10 are within one mile of the proposed Starkweather unit pad?

11 A No. I'm not.

12 Q In your opinion, is the spacing exception you
13 requested be granted necessary to officially produce the
14 gas from the formation and to prevent waste?

15 A Yes.

16 Q In your opinion, is the unit designed to achieve
17 maximum production of the gas from the formation while
18 attempting not to negatively impact the interest of the
19 owners outside of the unit?

20 A Yes. It is.

21 Q If the Commission does not approve the spacing
22 exception, do you believe that would result in a waste or
23 a loss of the production capabilities from this area of
24 the Pt. Pleasant?

1 A Yes. It would be a waste.

2 MR. MILLER: I don't have any further questions,
3 Mr. Chairman.

4 CHAIRMAN LAY: Questions from members of the
5 Commission?

6 EXAMINATION

7 BY COMMISSIONER RADABAUGH:

8 Q Do you have anything to show or verify that the
9 field of spacing between the laterals is adequate? It's
10 not overkill, that type thing? Or are you going on a
11 hunch that we think this is right?

12 A We tried to build a pad to give us the spacing
13 to have the most flexibility. Right now, there's 1200
14 feet between the laterals. In the future, if we see there
15 are some inefficiencies of it, we need additional wells,
16 we can go in there and in-fill between them.

17 But for right now, the spacing, we're
18 figuring 600 feet on each side of it. That will give 1200
19 foot spacing between it. We hope to drain anywhere from
20 300 to 400 feet, maybe 500 or 600. We'll tell with time
21 once we put it on production. So we built the opportunity
22 in here that. If we see there is a need for additional
23 laterals, we can in-fill between them.

24 Q You're still not really answering my question.

5 Q You know, do you have evidence that says: well,
6 we can cut this thing down to 1200; we might even be able
7 to cut it down to 800? I mean, you're not giving me what
8 I'm wanting to hear.

15 But with time, we see that the effective
16 length may be on the order of 350 to 500 feet. That's
17 just based on some type-curve analysis looking at how it's
18 depleting with time.

24 So to be efficient, you have to put the

1 drainage of the laterals close to each other. What's the
2 optimum? We really don't know that yet. But I think this
3 is very reasonable to start with, as far as saying, okay,
4 we're going to plot a drain at least, you know, 450, 500
5 feet away from the well bore.

6 And then once we put those three wells on
7 production, we'll be able to see with time, you know, what
8 happens and with other experience in the basic. We'll
9 learn from other operators, also. But I think this is a
10 fair and reasonable way of spacing it out to start with.

11 Q Your answer's getting better.

12 A Okay.

13 Q You're getting more of what--

14 A Yeah.

15 Q --I'm looking for. And I guess down the road,
16 because now this is such an unknown situation-- You know,
17 it'd be like a year after this thing has been drilled and
18 in production. --I would think that you would want to
19 bring those results, if you had another hearing coming up,
20 and saying, hey, here's the results that we had and this
21 is why we think that we can do something a little
22 different.

23 Of course, I know you don't have anything
24 to work with right now except your models, computer

1 screens and all that. See what I'm saying?

2 A Yes. It's definitely a learning process. I
3 think we'll learn from other operators, also. But I think
4 this is a fair, good place to start.

5 EXAMINATION

6 BY CHAIRMAN LAY:

7 Q And I want to kind of maybe get to the root of
8 Bob's question. Have you modeled reservoir flow patterns
9 based on two Nanodarcy permeability to see what your
10 drainage area would be based upon a bore hole given in
11 this formation?

12 A We have not done any reservoir modeling. What
13 we have is eight months production history from our
14 Pribble 6H well and looking at the type-curve analysis or
15 whatever. Our reservoir engineer, he's given us an
16 estimate as far as what he thinks the effective drainage
17 area right now.

18 It's something a lot less than, you know,
19 if you had wells 3000 feet apart. You know, it's
20 something, you know, on the order of, you know, maybe 400
21 or 500 at best. But right now, it's limited data 'cause
22 we've had eight months production. It's one well.

23 Q Okay. So based upon that, now, your core
24 analysis that you mentioned earlier, is two Nanodarcy an

1 average perm across the entire Physical therapy. Pleasant
2 125 foot of thickness? Or did you have stringers or
3 lenses within that that had higher or lower perm?

4 A I think it varied. The two is an average.

5 Q So your model is-- You're using a decline curve
6 analysis based upon a two Nanodarcy permeability and your
7 decline curve analysis to determine your potential
8 recovery based-- And I'm asking the question. Based upon
9 your core analysis, hydrocarbon in place and the
10 permeability and porosity, is that what is driving your
11 well spacing?

12 A Restate the question as far as--

13 Q Okay. And this is my assumption. Are you using
14 your core data of two Nanodarcys, your core data
15 information of seven percent porosity and your hydrocarbon
16 saturations in place to -- and your decline curve analysis
17 from your existing well to determine a potential drainage
18 radius or area for these proposed wells?

19 A Yes.

20 Q And what was your analysis? What did it show
21 that the actual drainage would be?

22 A It's about 350 feet along the lateral.

23 Q Okay. So your intent-- Assuming that
24 hypothesis is correct, your intent would be to come back

1 at some point and in-fill between the three existing
2 wells?

3 A Yes. Providing that-- In the preliminary data,
4 you know, we only had one well. I think with time we'll
5 know more when we actually put these wells on production,
6 'cause that's based on the Pribble 6H well which was only
7 a 3000 foot lateral. This is twice the length.

8 So I think we'll have to get production
9 information on these three wells. And, yes. Based on
10 that information, we would in-fill if that would be the
11 best way to most efficiently recover the reserves in this
12 area.

13 Q Well, you just stated that you believe that the
14 drainage area is 350 feet. If that's the case, then why
15 didn't you space your laterals 1300 feet apart if you
16 potentially plan to do an in-fill, because you're going to
17 over-drain the unit by drilling the additional lateral?
18 If you don't drill it, you're going to leave gas in place.
19 But If you do, you're potentially encountering a depletion
20 issue.

21 A Right. If we see that-- I mean, right now, we
22 have one data point. We're trying to balance all the
23 unknowns. I think, you know, with time-- I mean, the
24 difference, whether it's 350 feet on average across the

1 whole lateral section, we don't know that. So we'll need
2 information to be able to go in there and do that.

3 But, yes. Ideally, you know, it's a range.
4 The 350 is not an exact number. I think it could be, you
5 know, 350 to 500. We don't know that. But, I mean, it's
6 in the order of that. So I think that with time we'll be
7 able to optimize future units.

8 But with this particular one, we felt like
9 this was a good balance of the unknown and getting more
10 information and then we could still leave the door open
11 for us to be able to do something else.

12 Q Okay. You said that you're uncertain, and you
13 could be between 350 and 500 feet area of drainage. Why
14 did you pick 400 foot from the outside or from the outside
15 well in your unit boundary as your unit boundary, if it's
16 potentially 500 feet?

17 A I think it's, you know-- That's an average,
18 within 350 to 500 along that lateral section. I would
19 think that 400 is a reasonable number on average to be
20 offset though, the drainage. So it's not going to be--
21 We just don't know it that precise. I mean, I think the
22 400 is a reasonable boundary off the outside laterals.

23 Q Okay. Your core data is from the one well?

24 A Mm-hum.

1 CHAIRMAN LAY: Okay. I think that's all the
2 questions I have. Any other members have questions?

3 COMMISSIONER RADABAUGH: I'm with you, Barry.
4 At this point with the spacing they've got, I see what
5 they're looking for and the potential down the road, but I
6 think that in-filled well could be a problem down the road
7 as far as drainage. It's your all's money.

8 EXAMINATION

9 BY COMMISSIONER MARTIN:

10 Q Mr. Chairman, I had a question. Ms. Corwin, I'm
11 looking at page one of two on the plat for 11HU. I
12 suspect they're all the same, but I'm just curious about
13 the pad layout with all the different, I guess, potential
14 locations, surface locations. You've got thirteen
15 locations there. And, of course, we're talking about 9,
16 11 and 13 here today. So what are these others?

17 A Those are all future wells that we may
18 potentially drill just as placeholders. As far as the
19 ones that say HU, that's horizontal Utica. The other ones
20 that say just "H," that's Marcellus. So we have planned
21 on the pad--

22 We have five Marcellus, and the remaining
23 eight-- Actually, on the one end of the pad, there's just
24 going to be the three Utica wells and then five Marcellus.

1 And then on the other end of that pad, we're planning to
2 have three Uticas and two Marcellus.

3 Q How many Marcellus have been permitted? Have
4 they all been permitted?

5 MR. CUTRIGHT: They have not all been.

6 THE WITNESS: No. Probably just permitted one
7 or two of them, if I'm correct, just to get the pad built.

8 BY COMMISSIONER MARTIN:

9 Q And the pad was completed about a year ago?

10 A It started at the end of last year. It was
11 finished at the beginning of this year.

12 Q So it was completed-- You had like a month,
13 roughly?

14 A I think January.

15 Q So we have with these thirteen-- You've got
16 five Marcellus and eight Utica? Is that what this
17 depicts?

18 A There's five, six, seven Marcellus when you look
19 at the total pad. And then for the Utica, it's one, two,
20 three, four, five, six.

21 Q Six Uticas, seven Marcellus?

22 A Mm-hum.

23 COMMISSIONER MARTIN: Thank you.

24 EXAMINATION

1 BY CHAIRMAN LAY:

2 Q I have one other question. Has Stone submitted
3 the logs from the Pribble Utica well to the Commission
4 yet?

5 A I am not aware of it yet. I can check.

6 Q Those need to be filed with the Commission.

7 A Okay.

8 CHAIRMAN LAY: Other questions? Okay. Witness
9 may be excused.

10 (Witness excused.)

11 MR. MILLER: We don't have any further questions
12 of our witnesses at this time, Mr. Chairman. We'd move
13 that the Commission approve the exception request as
14 amended and supplemented by the exhibits we submitted
15 today.

16 COMMISSIONER MARTIN: Mr. Chairman, I know we're
17 talking about three wells here. Do we know precisely
18 which of the two we need to -- the request is for?

19 COMMISSIONER RADABAUGH: Yeah. 11 and 13.

20 MS. RAINES: 11 and 13.

21 COMMISSIONER MARTIN: We know that the 9 will
22 clear it?

23 MS. RAINES: We're good with 9.

24 CHAIRMAN LAY: 9 has been granted Commission--

1 CHAIRMAN MARTIN: Okay.

2 CHAIRMAN LAY: --approval, and it's in Oil and
3 Gas for permitting. The first well was granted without
4 reservation because there's no joining in the spacing
5 requirements. So the second and third wells will require
6 the variation.

7 Any other comments or questions?

8 COMMISSIONER RADABAUGH: Mr. Chairman, one thing
9 I-- This is more, I guess, a housekeeping-type issue.
10 When I looked at the plat before the hearing and, you
11 know, we've had some changes here on the acreage, unit
12 size and on the lateral spacing and everything. We've
13 still got the same plat. But let's go back before the
14 hearing.

15 You know, when I was looking at this thing,
16 trying to go over it, something I see that's missing is--
17 You know, we've got the laterals. But unless you get the
18 ruler out, you know, it doesn't show the spacing between
19 laterals.

20 Doesn't really show the spacing over to the
21 400 foot unit line. It says-- Here's the 400 foot
22 boundary, but, you know, going across, you don't have the
23 notations.

24 You know, there's-- Yeah. It's there, but

1 there's nothing showing it this way, nothing between the
2 laterals saying, you know, it's 1500 feet or 1200 feet
3 or--

4 CHAIRMAN LAY: Actually, that's a really good
5 point. I had discussed that earlier with Staff that a
6 slight-- I didn't pick up on the 400 feet because I
7 assumed that it was that, but I think it should be
8 depicted on the plat.

9 So additional deficiencies in the plat
10 going forward should show the distance from the unit
11 boundary to, you know, the adjacent horizontal. There
12 should be some spacing between the laterals so that we
13 understand what the proposed spacing between horizontals
14 actually is on the plat.

15 COMMISSIONER RADABAUGH: Yeah. 'Cause, you
16 know, it still gets back to the question awhile ago of--

17 CHAIRMAN LAY: Absolutely.

18 COMMISSIONER RADABAUGH: --you know, should this
19 plat have been re-done? And you say, well, no, actually
20 the acreage came up-- This was right when we calculated
21 the acreage.

22 Well, then we get to spacing. It went from
23 500 to 600 on each side of the lateral. Well, which was
24 it? Was it 600 or was it 500? I don't know, you know.

1 So going forward, those are things you need
2 to be looking at.

3 CHAIRMAN LAY: And you have to bear with us
4 because we're evolving. The horizontals are becoming more
5 prevalent. They're becoming more complicated. And the
6 information that we need to see in the presentation may
7 change throughout the course of the development as new
8 things develop.

9 Okay. That being the case, we'll go off
10 the record.

11 (WHEREUPON, a discussion was
12 had off the record.)

13 CHAIRMAN LAY: All right. Let's go back on the
14 record. Do I have a motion?

15 COMMISSIONER RADABAUGH: Mr. Chairman, I have a
16 motion. I make a motion to approve Stone Energy's request
17 for an exception to Rule 39CSR1-4.2 for spacing between
18 laterals of 1200 feet for the Starkweather 11HU and 13HU
19 located in Wetzel County, West Virginia.

20 COMMISSIONER GUM: I'd like to second that
21 motion.

22 CHAIRMAN LAY: I have a motion and a second.
23 Any further discussion? All those in favor of the motion,
24 aye. Opposed nay. Motion carries. Your request is

1 granted.

2 MR. MILLER: Thank you very much.

3 CHAIRMAN LAY: Anything else for the record?

4 Okay. We'll close the record.

5 (WHEREUPON, the request for
6 exception was granted.)

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REPORTER'S CERTIFICATE

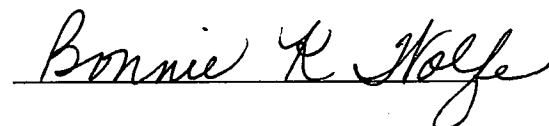
STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, to wit:

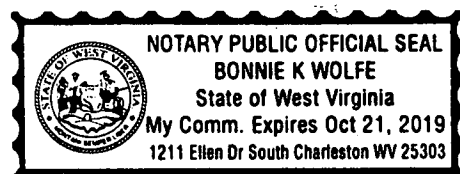
I, BONNIE K. WOLFE, Certified Court Reporter and Notary Public of West Virginia, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings as set forth in the caption hereof.

Given under my hand this 31st day of July, 2015.

My commission expires October 21, 2019.



Certified Court Reporter



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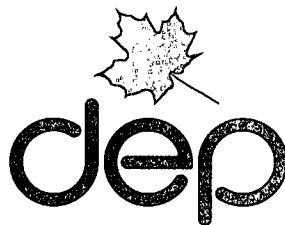
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west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
www.wvdep.org

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY STONE ENERGY
CORPORATION FOR AN EXCEPTION TO RULE 39CSR1-4.2
REGARDING THE DRILLING OF THE WELLS IDENTIFIED
AS THE STARKWEATHER 11HU AND STARKWEATHER
13HU TO BE LOCATED IN GREEN DISTRICT, WETZEL
COUNTY, WEST VIRGINIA.

DOCKET NO. 232
CAUSE NO. 222

NOTICE OF HEARING

Stone Energy Corporation ("Stone") has filed a request with the Oil and Gas Conservation Commission seeking an exception to Rule 39.1.4.2 for the drilling the proposed wells identified as the Starkweather 11HU and Starkweather 13HU. Stone has requested an exception to the spacing requirements imposed on deep wells. The proposed Starkweather 11HU and Starkweather 13HU locations would be drilled from the same pad as the already permitted Starkweather 9HU.

The matter has been scheduled as stated below:

DATE: July 23, 2015

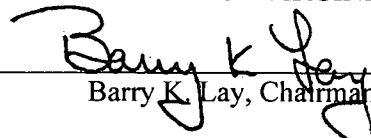
TIME: 10:00 am

PLACE: Department of Environmental Protection
Oil and Gas Conservation Commission
601 57th Street, SE
Charleston, WV 25304

IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

By: _____


Barry K. Lay, Chairman

Dated this 5th day of June, 2015 at Charleston, West Virginia.

Promoting a healthy environment.

Docket # 232-222
Certified Mail

Stone Energy Corporation
Attention: Roger Cutright
1300 Fort Pierpoint Drive Suite 201
Morgantown, WV 26508

91 7199 9991 7034 1372 5767

Ex. 2

West Virginia Secretary of State — Online Data Services**Administrative Law**

Online Data Services Help

Administrative Law**Meeting Notice Detail**[Back to Meeting Notices](#)

Oil and Gas Conservation Commission
Date/Time: 7/23/2015 -- 10:00 AM
Location: Department of Environmental Protection Oil and Gas Conservation Commission 601 57th Street, SE Charleston, WV 25304 304-926-0499 Ext 1656
Purpose: HEARING - In the matter of the request by Stone Energy Corporation for an exception to Rule 39CSR1-4.2 regarding the drilling of the wells identified as the Starkweather 11HU and Starkweather 13HU to be located in Green District, Wetzel County, West Virginia.
Notes: This is a compliant meeting.
Meeting was approved : 6/4/2015 2:53:24 PM

[Back to Meeting Notices](#)

Thursday, June 4, 2015 — 2:59 PM

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EX. 3



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
www.wvdep.org

June 4, 2015

The Wetzel Chronicle
Post Office Box 289
New Martinsville, WV 26155

VIA email to: office@wetzelchronicle.com

RE: Class 11 - Legal Advertisement
Docket No. 232-222

Dear Sir:

Please print the enclosed Notice of Hearing as a Class 11 legal advertisement in the Wetzel Chronicle on Wednesday, June 10 and again on Wednesday, June 17, and send affidavit of publication and invoice to me at the address above.

If you should have any questions, please call me at 304-926-0499 ext. 1656

Sincerely,

Cindy Raines
Executive Assistant

encl:

Wetzel Chronicle Print Ad Proof

ADNo: 12539 Customer Number: L00168
Customer Name: Company: WV OIL AND GAS CONSE
Address: 601 57TH STREET SE CHARLESTON
City/St/Zip: CHARLESTON , WV 25304
Phone: (304) 926-0499 Solicitor: DW
Category: 10 Class: 1000 Rate: LE-0 Start: 6-10-2015 Stop: 6-17-2015
Lines: 52 Inches: 5.06 Words: 209

Credit Card: Expire:
Order Number:
Cost: 89.96 Extra Charges: .00 Adjustments: .00
Payments: .00 Discount: .00
Balance: 89.96

**BEFORE THE OIL AND GAS CONSERVATION
COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY STONE EN-
ERGY CORPORATION FOR AN EXCEPTION TO
RULE 39CSR1-4. REGARDING THE DRILLING OF
THE WELLS IDENTIFIED AS THE STARKWEATHER
11HU AND STARKWEATHER13HU TO BE LOCATED
IN GREEN DISTRICT, WETZEL COUNTY, WEST
VIRGINIA.

**DOCKET NO. 232
CAUSE NO. 222**

NOTICE OF HEARING

Stone Energy Corporation ("Stone") has filed a request with the Oil and Gas Conservation Commission seeking an exception to Rule 39.1.4.2 for the drilling the proposed wells identified as the Starkweather 11HU and Starkweather 13HU. Stone has requested an exception to the spacing requirements imposed on deep wells. The proposed Starkweather 11HU and Starkweather 13HU locations would be drilled from the same pad as the already permitted Starkweather 9HU.

The matter has been scheduled as stated below:

DATE: July 23, 2015

TIME: 10:00 am

PLACE: Department of Environmental Protection
Oil and Gas Conservation Commission
601 57th Street, SE
Charleston, WV 25304

IN THE NAME OF THE STATE OF WEST VIRGINIA

**OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

By: _____
Barry K. Lay, Chairman

Dated this 5th day of June, 2015 at Charleston, West Virginia.

WVDEP OIL AND GAS CONSERVATION
COMMISSION
WC-6-10,17 12539

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



November 24, 2014

Oil and Gas Conservation Commission
Department of Environmental Protection
Attention: Cindy Raines
601 57th Street
Charleston, WV 25304

Re: Application for W. Va. CSR § 39-1-4.2 Spacing Exception for the Starkweather #9HU,
#11HU, and #13HU

Dear Ms. Raines:

Pursuant to W. Va. CSR § 39-1-4.3, please find enclosed an original and two copies of Stone Energy Corporation's ("Stone") supplemental application for exception to the 3000' spacing requirement set forth in W. Va. CSR § 39-1-4.2

Should you have any questions, please feel free to contact me.

Respectfully,

A handwritten signature in black ink that reads "Roger L. Cutright". The signature is fluid and cursive, with a large loop at the beginning and a long horizontal stroke at the end.

Roger Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE SUPPLEMENTAL APPLICATION BY STONE ENERGY CORPORATION, A DELAWARE CORPORATION, FOR AN EXCEPTION TO THE 3000' SPACING REQUIREMENT SET FORTH IN W. VA. CSR § 39-1-4.2

DOCKET NO. _____
CASE NO. _____

SUPPLEMENTAL APPLICATION FOR SPACING EXCEPTION

NOW COMES STONE ENERGY CORPORATION, a Delaware corporation, ("Applicant") and gives notice of its intention to direct the bottom of the Starkweather #9HU, #11HU, and #13HU wells away from vertical and, pursuant to W. Va. CSR § 39-1-4.3, requests an exception to the 3,000' spacing requirement set forth in W. Va. CSR § 39-1-4.2. In support of its Supplemental Application, Applicant states as follows:

1. Applicant is a Delaware corporation engaged in the production of oil and gas within the State of West Virginia and is an operator within the meaning of W. Va. Code § 22C-9-2(a)(4). The Applicant is a qualified and experienced operator of oil and gas wells, including horizontal wells, in West Virginia. The Applicant's address is: Stone Energy Corporation, 1300 Fort Pierpont Drive, Suite 201, Morgantown, WV 26508.
2. Applicant has submitted with this Supplemental Application for Spacing Exception well work permit applications for the Starkweather #9HU, #11HU, and #13HU deep wells (each with a Utica target formation).
3. Applicant will form an approximate 640-acre voluntary unit around the Starkweather #9HU, #11HU, and #13HU deep wells (the "Starkweather Unit A").
4. The Starkweather #9HU, #11HU, and #13HU deep wells are planned for a 500' lateral offset. Applicant believes such spacing will allow for the most efficient development of the oil and gas within the Starkweather Unit A and minimize the potential for waste.

WHEREFORE, Applicant respectfully requests that this Commission conduct such hearings as are required by law regarding the exception requested and enter an order approving such exception.

STONE ENERGY CORPORATION


Roger Cutright

Appalachia Land Manager and Special
Counsel

1300 Fort Pierpont Drive, Suite 201

Morgantown, WV 26508

304-225-1789

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



November 24, 2014

Oil and Gas Conservation Commission
Department of Environmental Protection
Attention: Cindy Raines
601 57th Street
Charleston, WV 25304

Re: Application for W. Va. CSR § 39-1-4.2 Spacing Exception for the Starkweather #9HU,
#11HU, and #13HU

Dear Ms. Raines:

Pursuant to W. Va. CSR § 39-1-4.3, please find enclosed an original and two copies of Stone Energy Corporation's ("Stone") supplemental application for exception to the 3000' spacing requirement set forth in W. Va. CSR § 39-1-4.2

Should you have any questions, please feel free to contact me.

Respectfully,

A handwritten signature in black ink that reads "Roger L. Cutright". The signature is fluid and cursive, with a long horizontal stroke at the end.

Roger Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE SUPPLEMENTAL APPLICATION BY STONE ENERGY CORPORATION, A DELAWARE CORPORATION, FOR AN EXCEPTION TO THE 3000' SPACING REQUIREMENT SET FORTH IN W. VA. CSR § 39-1-4.2

DOCKET NO. _____
CASE NO. _____

SUPPLEMENTAL APPLICATION FOR SPACING EXCEPTION

NOW COMES STONE ENERGY CORPORATION, a Delaware corporation, ("Applicant") and gives notice of its intention to direct the bottom of the Starkweather #9HU, #11HU, and #13HU wells away from vertical and, pursuant to W. Va. CSR § 39-1-4.3, requests an exception to the 3,000' spacing requirement set forth in W. Va. CSR § 39-1-4.2. In support of its Supplemental Application, Applicant states as follows:

1. Applicant is a Delaware corporation engaged in the production of oil and gas within the State of West Virginia and is an operator within the meaning of W. Va. Code § 22C-9-2(a)(4). The Applicant is a qualified and experienced operator of oil and gas wells, including horizontal wells, in West Virginia. The Applicant's address is: Stone Energy Corporation, 1300 Fort Pierpont Drive, Suite 201, Morgantown, WV 26508.
2. Applicant has submitted with this Supplemental Application for Spacing Exception well work permit applications for the Starkweather #9HU, #11HU, and #13HU deep wells (each with a Utica target formation).
3. Applicant will form an approximate 640-acre voluntary unit around the Starkweather #9HU, #11HU, and #13HU deep wells (the "Starkweather Unit A").
4. The Starkweather #9HU, #11HU, and #13HU deep wells are planned for a 500' lateral offset. Applicant believes such spacing will allow for the most efficient development of the oil and gas within the Starkweather Unit A and minimize the potential for waste.

WHEREFORE, Applicant respectfully requests that this Commission conduct such hearings as are required by law regarding the exception requested and enter an order approving such exception.

STONE ENERGY CORPORATION


Roger Cutright

Appalachia Land Manager and Special
Counsel

1300 Fort Pierpont Drive, Suite 201

Morgantown, WV 26508

304-225-1789

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



November 24, 2014

Oil and Gas Conservation Commission
Department of Environmental Protection
Attention: Cindy Raines
601 57th Street
Charleston, WV 25304

Re: Application for W. Va. CSR § 39-1-4.2 Spacing Exception for the Starkweather #9HU,
#11HU, and #13HU

Dear Ms. Raines:

Pursuant to W. Va. CSR § 39-1-4.3, please find enclosed an original and two copies of Stone Energy Corporation's ("Stone") supplemental application for exception to the 3000' spacing requirement set forth in W. Va. CSR § 39-1-4.2

Should you have any questions, please feel free to contact me.

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Roger Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

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DOCKET NO. _____
CASE NO. _____

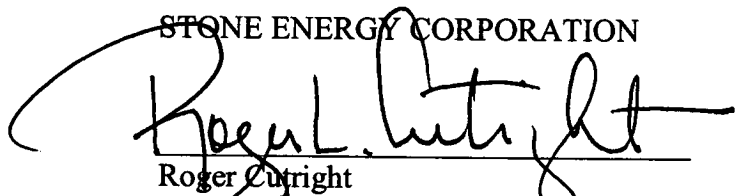
SUPPLEMENTAL APPLICATION FOR SPACING EXCEPTION

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4. The Starkweather #9HU, #11HU, and #13HU deep wells are planned for a 500' lateral offset. Applicant believes such spacing will allow for the most efficient development of the oil and gas within the Starkweather Unit A and minimize the potential for waste.

WHEREFORE, Applicant respectfully requests that this Commission conduct such hearings as are required by law regarding the exception requested and enter an order approving such exception.

STONE ENERGY CORPORATION



Roger Cutright
Appalachia Land Manager and Special
Counsel
1300 Fort Pierpont Drive, Suite 201
Morgantown, WV 26508
304-225-1789



1300 Fort Pierpont
Suite 201
Morgantown, West Virginia 26508
Telephone: (304) 225-1600

April 28, 2015

RE: Modifications to Starkweather 9HU, Starkweather 11HU, Starkweather 13HU, Well Work Permit Applications

Enclosed please find modifications for the Starkweather 9HU, Starkweather 11HU, and Starkweather 13HU well work permit applications previously submitted.

Please contact me or Danielle Snoderly (304.225.1775) if you have any questions.

A handwritten signature in black ink, reading "Roger L. Cutright". The signature is fluid and cursive, with the first name "Roger" and last name "Cutright" clearly legible.

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
cutrightrl@stoneenergy.com
304-225-1789 (Direct)

Received
Office of Oil & Gas
APR 30 2015

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator:	Stone Energy Corporation	494490923	Wetzel	Green	Porters Falls
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: #11HU Well Pad Name: Starkweather

3) Farm Name/Surface Owner: Starkweather, Heath & Charmine Public Road Access: Wetzel County Route 20/1

4) Elevation, current ground: 1,280' Elevation, proposed post-construction: 1,258'

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____ Horizontal well with pilot hole _____
(b) If Gas Shallow _____ Deep X
Horizontal X

6) Existing Pad: Yes or No Yes DMA
4-28-15

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
The well will target the Utica/Point Pleasant formations @ 11,467' TVD (-10,209' SS), 350' thick w/ RP = 9,200 - 9,700 psig. ✓

8) Proposed Total Vertical Depth: 11,742' ✓

9) Formation at Total Vertical Depth: Utica/Point Pleasant ✓

10) Proposed Total Measured Depth: 18,700'

11) Proposed Horizontal Leg Length: 6,440 from the LP & 7,678 from the KOP

12) Approximate Fresh Water Strata Depths: 404', 489', 669' & 1,074'

13) Method to Determine Fresh Water Depths: When having to soap wellbore or show of fluid at end of flow line

14) Approximate Saltwater Depths: 2,289' & 2,354'

15) Approximate Coal Seam Depths: 589', 934' & 1,069'

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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Office of Oil & Gas
APR 30 2015

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24.0	New	LS	94.0	80'	80'	77 - CTS
Fresh Water/Coal	18.625	New	H40	97.5	1,275' KB / 1,254' GL	1,275' KB / 1,254' GL	2,180 - CTS
Intermediate 1	13.375	New	J55	54.5	2,540'	2,540'	Lead-1,641 Tail-550 CTS
Intermediate 2	9.625	New	P110	53.5	8,815'	8,815'	Lead-2,354 Tail-439 TOC @ 1,480'
Production	5.5	New	P110	26.0		18,700	3,087 - TOC @ 6,315'
Tubing							
Liners							

Note: The Fresh Water/Coal casing setting depth is just above Sea Level. At no time will the casing be set below Sea Level. This setting depth is due to sloughing formation below the deepest coal seam.

DMH
4-28-15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24.0	26.0	0.375	1,180	944	Type 1	1.18
Fresh Water/Coal	18.625	22.0	0.435	1,630	1,304	HalCem	1.198
Intermediate 1	13.375	17.5	0.380	2,730	2,184	HalCem	Lead-1.198 Tail-1.223
Intermediate 2	9.625	12.25	0.545	10,900	8,720	HalCem	Lead-2.98 Tail-1.29
Production	5.5	8.75	0.361	14,520	11,616	VariCem	1.22
Tubing							
Liners							

PACKERS

Kind:	TAM CAP Inflatable			
Sizes:	13.375"			Received
Depths Set:	1,000'			Office of Oil & Gas APR 30 2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drilling will consist of the use of three rigs. First a conductor rig will be MIRU to set and cement 24.0" conductor back to surface. RDMO conductor rig. The second rig (Top Hole) will be MIRU and it will drill and cement back to surface both the 18.625" and 13.375" casing strings. It will then drill the 12.25" hole to just above the Salina Salt formation. The well will be loaded from TD to surface with 3-6% KCl fluid and a gyro run inside of the drill string to TD to obtain well bore placement. RDMO Top Hole Rig. MIRU Horizontal Rig to finish drilling the 12.25" hole section and setting the 9.625" casing and cementing to ~1,000' inside the 13.375" casing. The well will then be directionally drilled to TD, 5.5" production casing run and cemented back to 2,500 inside the 9.625" casing string. After the installation of the night cap the Rig will then skid to the next pad well or move to a new location/pad.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Stimulation will begin by MIRU of coil tubing unit or service rig. The 5.5" casing is then cleaned out to the PBTD and a CBL is then run to approximately 30-60 degrees in the curve and pulled to surface. The next step is to perforate the toe stage. A stimulation company is then MIRU and the toe stage is fractured. Anticipated pressures is 9,000 psi with between 85 & 90 bmp pump rate. Each subsequent stage is then perforated after a pump down frac plug is set and the stage is perforated. After all stages are completed the well is SI and the stimulation company is RDMO. A coil tubing unit or service rig with snubbing unit is then MIRU and the frac plugs are drilled out and the 5.5" casing cleared to the PBTD. The rig is then RDMO and a flow back crew is RU to flow back the free water to frac tanks. Once well begins to gas it is either flared or placed in line through a separator and produced. The well is next turned over to production and the flow back crew is RDMO.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 10.6

22) Area to be disturbed for well pad only, less access road (acres): 7.4

23) Describe centralizer placement for each casing string:

Dmt 4-28-15

The fresh water/coal string will incorporate the use of bow spring centralizers beginning generally on joint 2 to surface on every third joint. The intermediate strings 1 & 2 will incorporate bow spring centralizers with one on joint 2 and then every fourth joint to surface. The production string will use alternating left and right rigid spiral centralizers beginning on joint 2 and then every fourth joint to the pup joint 100' above the KOP. From there bow spring centralizers will be used on every third joint from the KOP to TOC.

24) Describe all cement additives associated with each cement type:

Fresh water/coal string and intermediate strings 1 & 2 will be cemented using HalCem which is a Class "A" cement with 0.25 pps Pol-E-Flake with up to 2% CaCl. The production string will be cemented with VariCem which is a Class "A" that can be mixed at different weights.

Received
Office of Oil & Gas

APR 30 2015

25) Proposed borehole conditioning procedures:

- The 20.0" and 17.5" hole sections will be conditioned using air and/or soap until cuttings are removed from the well bore.
- The 12.25" section will be conditioned using air and/or stiff foam until cuttings have been removed from the well bore.
- The 8.75" section will be conditioned with a minimum of three bottoms up of drilling fluid (mud) and the shakers screens are clear of cuttings.

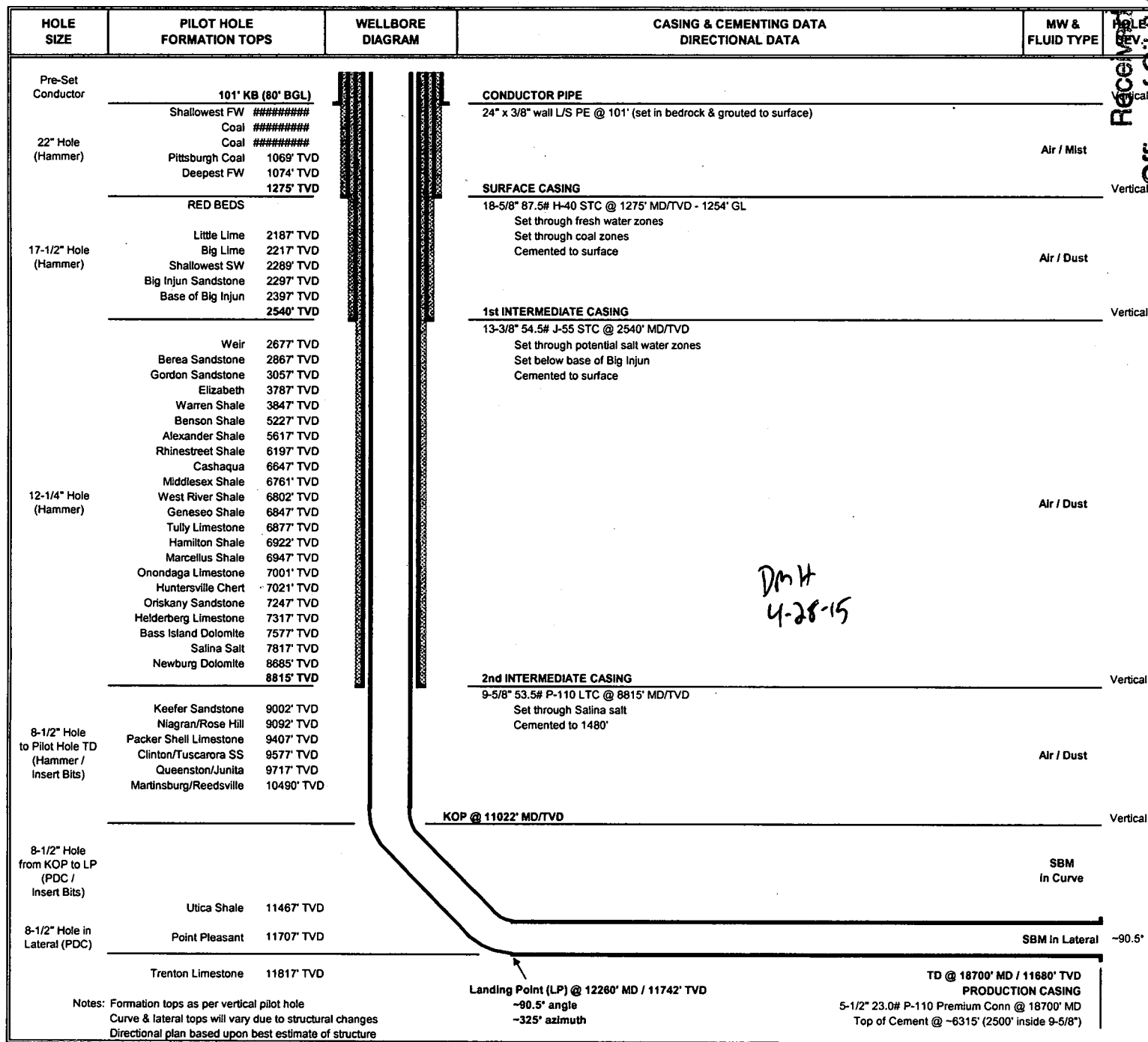
*Note: Attach additional sheets as needed.

Well: Starkweather #11HU
 State: West Virginia
 County: Wetzel
 District: Green
 Prospect: Mary
 Location: Surface: Lat = 39.575049° N & Long = 80.788023° W / (N) 4,380,615' (E) 518,206' (UTM - NAD83, Zone 17)
 Permitted BHL: Lat = 39.591580° N & Long = 80.801645° W / (N) 4,382,447' (E) 517,032' (UTM - NAD83, Zone 17)
 Proposed TD: 18700' MD / 11680' TVD

PROPOSED HORIZONTAL

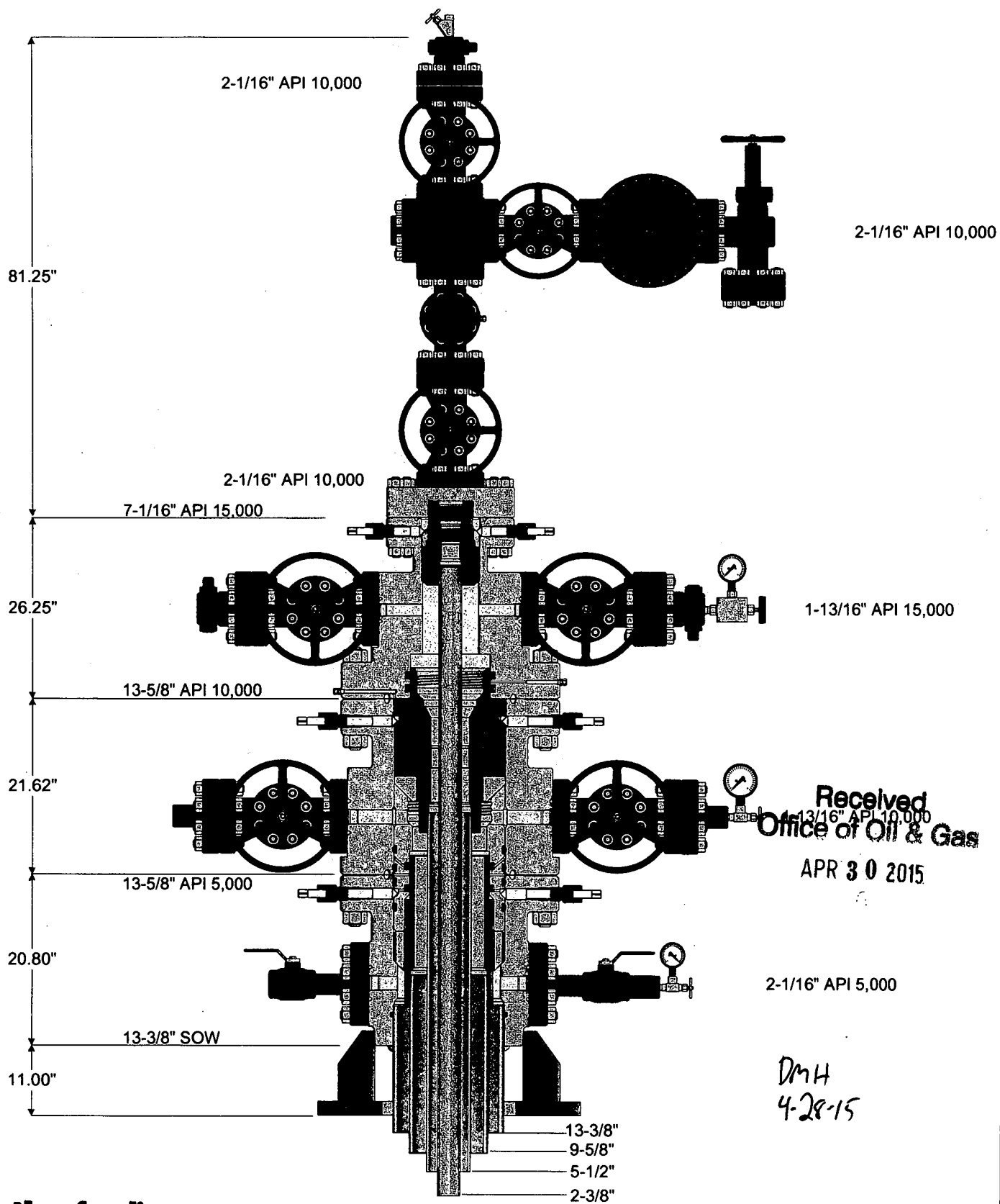
Revision: 28-Jan-15

Permit Number: 47-103-03064
 Permit Issued:
 Post Construction Ground Elevation: 1258'
 Kelly Bushing: 21'
 Rig:
 Spud Date:
 TD Date:
 Rig Release Date:



Received
 Office of Oil & Gas
 APR 30 2015

NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THIS DRAWING ARE ESTIMATED DIMENSIONS AND ARE FOR REFERENCE ONLY.



Weatherford

© 2014 Weatherford All rights reserved

Customer: STONE ENERGY

Project No.: 97141

Quote No.: 207578

Project Name: UTICA

Date: 02/26/2014

Drawn By: SS



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

David B Loy
RR 2, Box 163
New Martinsville, WV 26155

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

Dear Sir:

Please be advised that Stone Energy Corporation has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by May 26, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Chesapeake Appalachia, LLC
6100 North Western Avenue
Oklahoma City, OK 73118

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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Benjamin R Yoho
Post Office Box 665
New Martinsville, WV 26155

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Garnett Gas Corporation
Post Office Box 133
Creston, WV 26141

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

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Executive Assistant

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west virginia department of environmental protection

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(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Marie A Morgan (heirs)
7822 Gingerbread Lane
Fairfax Station, VA 22039

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

Dear Sir:

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encl: as stated



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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Fred C Kunzelman
14 Matthew Drive
Fairmont, WV 26554

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601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Statoilhydro USA Onshore Properties, Inc.
2103 City West Boulevard, Suite 800
Houston, TX 77042

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(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Donna Schell
34 Williamsburg Circle
Wheeling, WV 26003

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

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Executive Assistant

encl: as stated



west virginia department of environmental protection

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601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Michael R Powell
367 Franklin Street
New Martinsville, WV 26155

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Cindy Raines

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Hayhurst Company
Post Office Box 5065
Fairmont, WV 26555

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

Dear Sir:

Please be advised that Stone Energy Corporation has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by May 26, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Faye A Skinner
224 Riverview Drive
New Martinsville, WV 26155

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

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dep.wv.gov

May 13, 2015

George William Grimm
753 Camp Creek Road
Spencer, TN 38585

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Sincerely,

Cindy Raines
Executive Assistant

encl: as stated

STARKWEATHER #11HU

(SEE PAGE 2 OF 2 FOR PLAT)

LATITUDE 39°35'00"

LONGITUDE 80°45'00"

LAT. 39°34'30.0"

STARKWEATHER #11HU
SURFACE HOLE

STATE PLANE
COORDINATES
NORTH ZONE NAD 27
(N) 384132
(E) 169880
L & L DECIMAL
NAD 27
38.4147
80.7820
UTM (NAD 83)
ZONE 17
METERS
488076
818200

STARKWEATHER #11HU
LANDING POINT

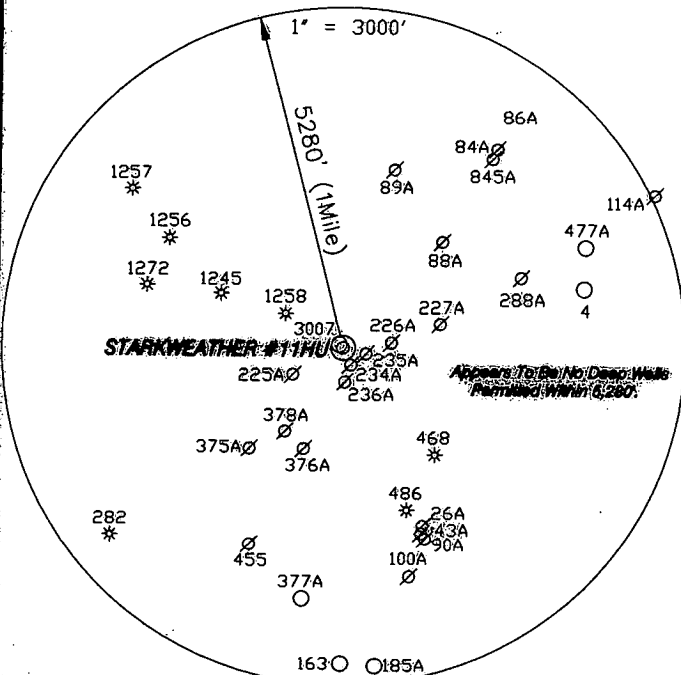
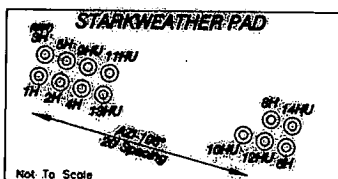
STATE PLANE
COORDINATES
NORTH ZONE NAD 27
(N) 384132
(E) 169880
L & L DECIMAL
NAD 27
38.4147
80.7820
UTM (NAD 83)
ZONE 17
METERS
488076
818200

STARKWEATHER #11HU
BOTTOM HOLE

STATE PLANE
COORDINATES
NORTH ZONE NAD 27
(N) 384132
(E) 169880
L & L DECIMAL
NAD 27
38.4147
80.7820
UTM (NAD 83)
ZONE 17
METERS
488076
818200

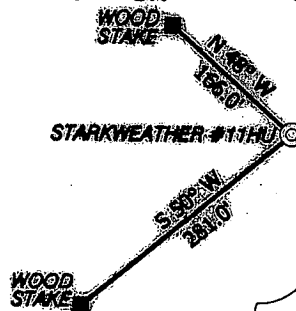
STARKWEATHER #11HU

TRACT ID	LESSOR	LEASED ACRES	UNIT ACRES
A	STARKWEATHER #11HU	88.0±	78.0±
B	STARKWEATHER #11HU	81.0±	20.2±
C	BLUE RIDGE GAS PARTNERS	78.70±	70.2±
D	STARKWEATHER #11HU	83.0±	0.00±
E	BLUE RIDGE GAS PARTNERS	80.0±	20.4±
F	DAVID A. COOPER, et al	87.0±	7.1±
G	CHESAPEAKE APPLICABLE, LLC	88.00±	88.0±
H	GASTON EXPLORATION, et al	100.00±	0.3±
I	GASTON EXPLORATION, et al	31.84±	4.6±
J	GASTON EXPLORATION, et al	80.0±	32.2±
K	ROBERT J. POWELL, et al	38.0±	2.3±
L	STARKWEATHER #11HU	32.0±	28.7±
M	STARKWEATHER #11HU	66.1±	66.1±
N	STARKWEATHER #11HU	0.87±	0.87±
O	STARKWEATHER #11HU	0.69±	0.69±
P	BLAUNIER LINDSEY SMITH, et al	0.84±	0.84±
Q	NOT RECORDED	6.70±	6.70±
R	NOT RECORDED	2.0±	2.0±
S	STARKWEATHER #11HU	0.3±	0.3±
T	RAYMOND E. LANGRISH	0.5±	0.5±
U	CHARLTON HARRISON	0.28±	0.28±
V	STARKWEATHER #11HU	2.10±	2.10±
W	STARKWEATHER #11HU	2.0±	2.0±
X	STARKWEATHER #11HU	1.4±	1.4±
Y	STARKWEATHER #11HU	2.3±	2.3±
Z	DAVID A. COOPER	4.0±	4.0±
AA	STARKWEATHER #11HU	308.0±	28.4±
BB	STARKWEATHER #11HU	70.90±	2.8±
CC	STARKWEATHER #11HU	144.0±	6.8±
DD	STARKWEATHER #11HU	0.40±	0.40±
EE	BLUE RIDGE GAS PARTNERS	76.72±	76.72±
FF	BLUE RIDGE GAS PARTNERS	1.70±	1.70±
GG	BLUE RIDGE GAS PARTNERS	1.04±	1.04±
HH	BLUE RIDGE GAS PARTNERS	30.90±	30.90±
II	BLUE RIDGE GAS PARTNERS	1.0±	1.0±
JJ	STARKWEATHER #11HU	68.0±	7.7±
		UNIT TOTAL	541.24±



REFERENCES

1" = 200'



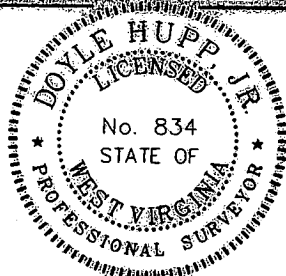
NOTES ON SURVEY

1. NO DWELLINGS WITHIN 625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
4. WELL LAT./LONG. ESTABLISHED BY SG-GPS (OPUS).
5. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN DECEMBER, 2013 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WVDCP.
7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
8. VOLUNTARY POOLING
9. THIS PLAT AND/OR THE DEPICTIONS ARE UNDER NO CIRCUMSTANCES TO BE CONSTRUED AS ANY TYPE OF BOUNDARY SURVEY. THIS PLAT IS FOR OIL & GAS PURPOSES ONLY AND IS CREATED FOR THE USE OF THE WELL OPERATOR(S) ONLY.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S.
834

[Signature]
DOYLE HUPP, JR.
P.O. Box 647 Grantsville, WV 26147
(304) 354-7035 EMAIL: hupp@doylehupp.net



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE APRIL 21, 2015

OPERATORS WELL NO. STARKWEATHER #11HU

API
WELL NO. 47-103-
STATE COUNTY PERMIT

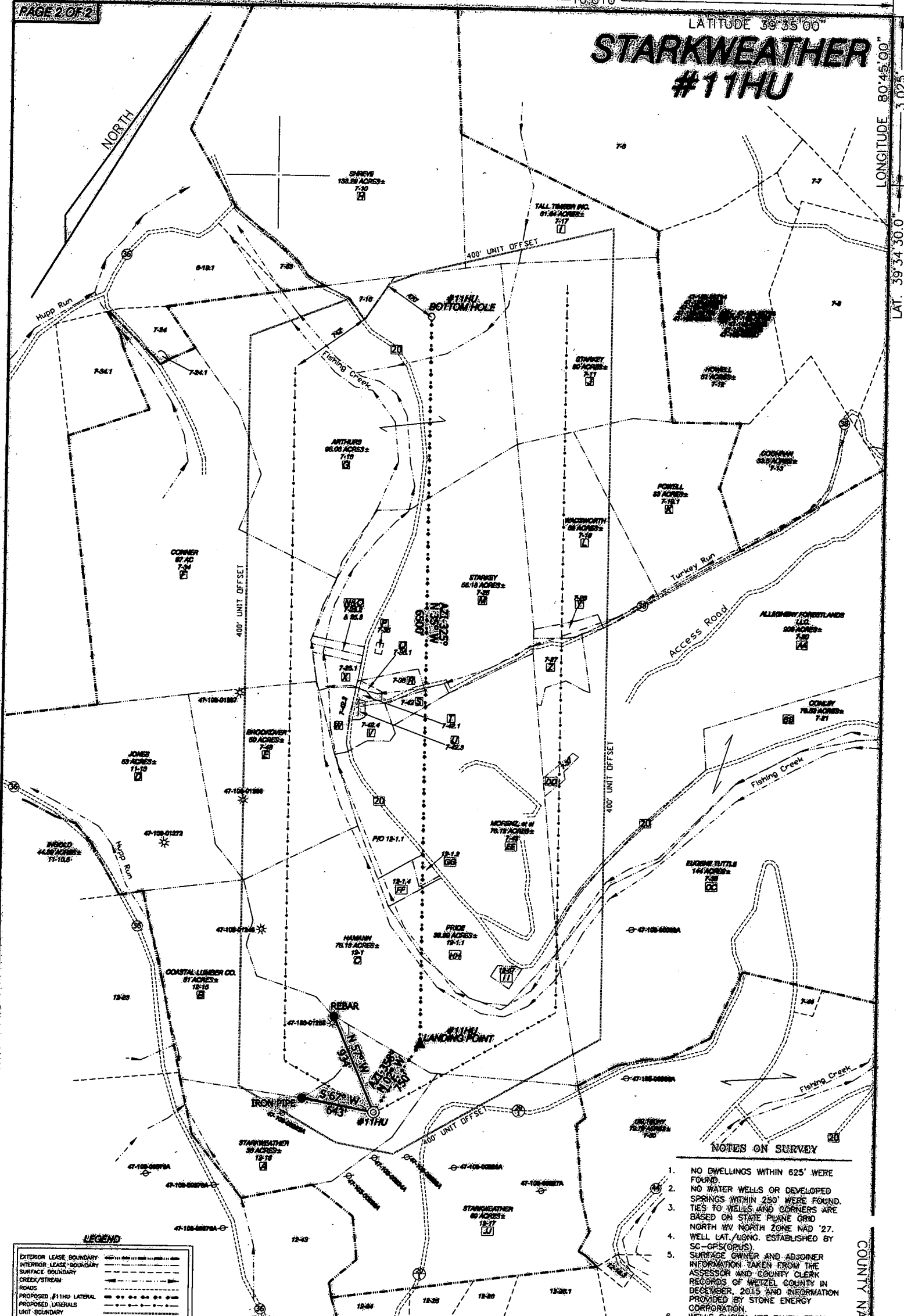
MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. W2173 (BK 59-35)
PROVEN SOURCE OF ELEVATION SG-GPS (OPUS) SCALE 1" = 1000'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

WELL TYPE : OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
LOCATION :
ELEVATION 1,280' WATERSHED FISHING CREEK
DISTRICT GREEN COUNTY WETZEL QUADRANGLE PORTERS FALLS 7.5'
SURFACE OWNER HEATH & CHARMAINE STARKWEATHER ACREAGE 36±
ROYALTY OWNER HEATH & CHARMAINE STARKWEATHER, et al LEASE ACREAGE 541.24±
PROPOSED WORK :
LEASE NO. _____
DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION UTICA
ESTIMATED DEPTH TVD 11,680' MD 18,700'

WELL OPERATOR STONE ENERGY CORPORATION DESIGNATED AGENT TIM MCGREGOR
ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508 ADDRESS 1300 FORT MERRITT DR., SUITE 201 MORGANTOWN, WV 26508

STARKWEATHER #11HU

 LONGITUDE 80°45'00"
 LAT. 39°34'30.0"


LEGEND

EXTERIOR LEASE BOUNDARY	---
INTERIOR LEASE BOUNDARY	---
SURFACE BOUNDARY	---
CREEK/STREAM	---
ROADS	---
PROPOSED #11HU LATERAL	---
PROPOSED LATERALS	---
UNIT BOUNDARY	---
UNIT TRACT	---
PERMITTED WELL	---
ROAD/ROUTE NUMBER	---

API
WELL NO. 47-103-
STATE COUNTY PERMIT
DATE APRIL 21, 2015
OPERATORS WELL NO. STARKWEATHER #11HU

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6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WJDEP.
7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 3,280'.
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HUPP Surveying & Mapping
P.O. Box 647 Greenville, WV 26147
(304) 354-7035 EMAIL: hupp@frontiernet.net

WELL OPERATOR STONE ENERGY CORPORATION DESIGNATED AGENT TIM MCGREGOR
ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508 ADDRESS 1300 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

CERTIFICATE OF CONSENT AND EASEMENT

We, the undersigned, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, being all the owners of the surface of that certain lot, tract or parcel of land located in Green District, Wetzel County, State of West Virginia, shown on the attached plat or survey, or hereby consent and grant an easement, pursuant to West Virginia Code, Section 22C-9-7(b)(4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to Stone Energy Corporation, its successors or assigns, for the drilling and operation of a deep well for the production of oil or gas at the location shown on the attached plat or survey.

Executed this 12th day of December, 2014. Heath P. Starkweather
Charmaine A. Starkweather
Heath and Charmaine Starkweather

STATE OF MARYLAND

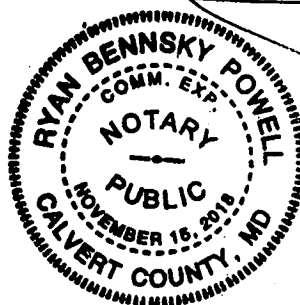
COUNTY OF Calvert To-Wit

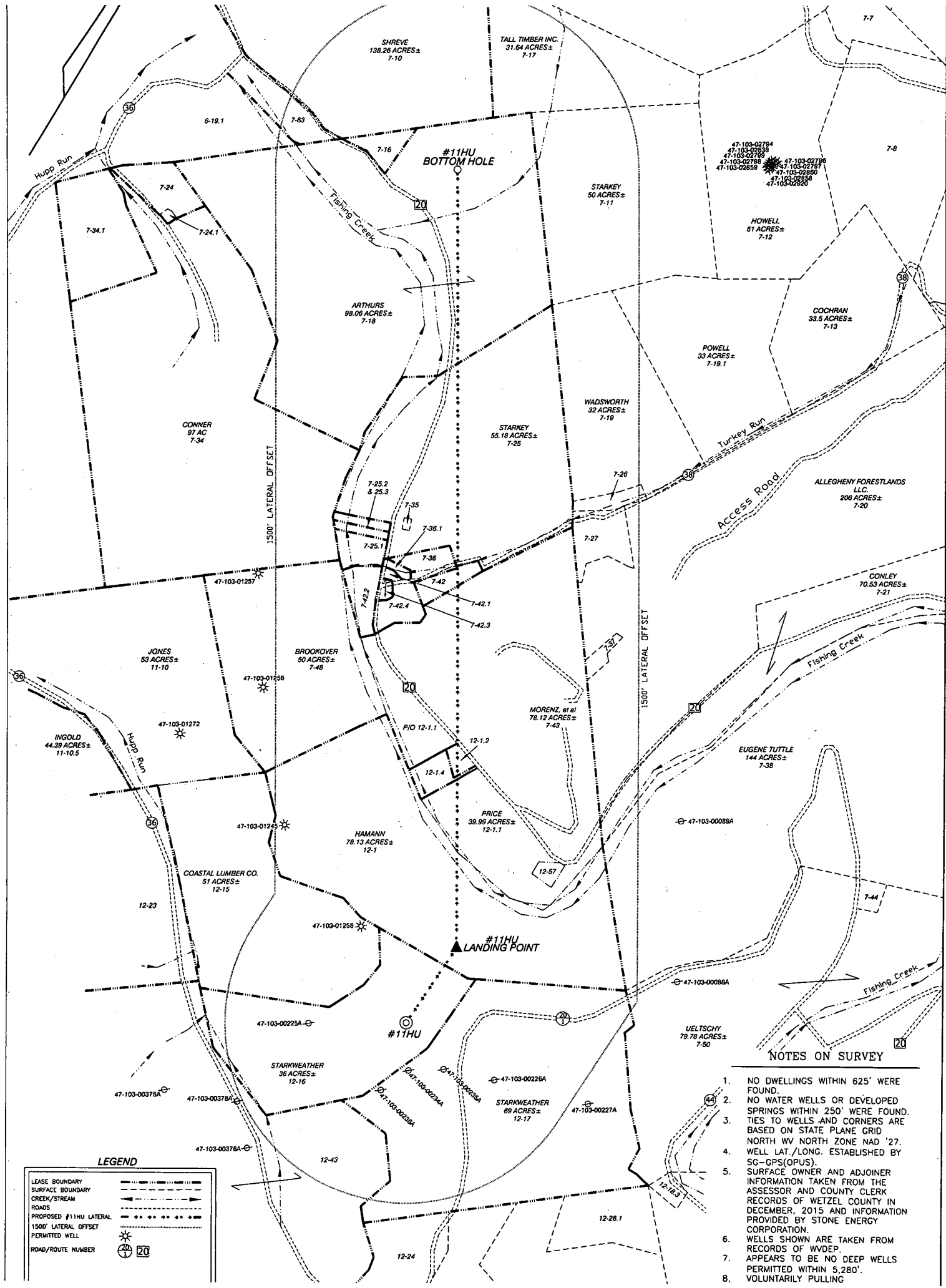
I, Ryan Benksky Powell, a Notary Public in and for the aforesaid County and State, do hereby certify that Heath and Charmaine Starkweather, whose name is signed to the writing above, bearing date on the 12 day of December, 2014, has this day acknowledged the same before me, in my said County and State. Given under my hand this 12 day of December, 2014.

[Signature]

My Commission expires on:

This instrument prepared by:
WV Oil and Gas Conservation Commission
601 57th Street
Charleston, WV 25304





LEGEND

LEASE BOUNDARY	---
SURFACE BOUNDARY	---
CREEK/STREAM	~ ~ ~
ROADS	==>
PROPOSED #11HU LATERAL	---+---
1500' LATERAL OFFSET	---
PERMITTED WELL	⊙
ROAD/ROUTE NUMBER	⊙ 20

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7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
8. VOLUNTARILY PULLING

Offset Operators
Starkweather 11HU

District	Tax Map	Parcel	Lessee/Non-Leased	Address
5	7	16	David B. Loy	RR 2, Box 163 New Martinsville, WV 26155
5	7	10	Chesapeake Appalachia, LLC	6100 North Western Ave. Oklahoma City, OK 73118
5	6	19.1	Chesapeake Appalachia, LLC	6100 North Western Avenue Oklahoma City ,OK 73118
5	6	19.1	Benjamin R. Yoho	P.O. Box 665 New Martinsville, WV 26155 or 2104 Laurel Valley Way Raleigh, NC 27604
5	6	19.1	Garnett Gas Corporation	PO Box 133 Creston, WV 26141
5	6	19.1	Marie A. Morgan Heirs	7822 Gingerbread Lane Fairfax Station, VA 22039
5	6	19.1	Fred C. Kunzelman	14 Matthew Drive Fairmont, WV 26554
5	7	63	Chesapeake Appalachia, LLC	6100 North Western Avenue Oklahoma City ,OK 73118
5	7	63	George William Grimm	753 Camp Creek Road Spencer, TN 38585
5	7	63	Statoilhydro USA Onshore Properties, Inc.	2103 CityWest Boulevard Suite 800 Houston, TX 77042
5	7	63	Donna Schell	34 Williamsburg Circle Wheeling, WV 26003
5	7	63	Michael R. Powell	367 Franklin Street New Martinsville, WV 26155
5	7	63	Hayhurst Company	P.O. Box 5065 Fairmont, WV 26555
5	7	63	Fred Kunzelman	14 Matthew Drive Fairmont, WV 26554
5	7	63	Faye A. Skinner	224 Riverview Drive New Martinsville, WV 26155

5	7	17	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	11	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	19	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	19.1	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	26	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	27	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	20	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	37	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	57	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	21	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	38	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	15	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	48	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42.3	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42.2	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508

5	7	42.1	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	25.1	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	25.2	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	25.3	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	34	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	43	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508



1300 Fort Pierpont
Suite 201
Morgantown, West Virginia 26508
Telephone: (304) 225-1600

April 28, 2015

RE: Modifications to Starkweather 9HU, Starkweather 11HU, Starkweather 13HU, Well Work Permit Applications

Enclosed please find modifications for the Starkweather 9HU, Starkweather 11HU, and Starkweather 13HU well work permit applications previously submitted.

Please contact me or Danielle Snoderly (304.225.1775) if you have any questions.

A handwritten signature in black ink, appearing to read "Roger L. Cutright", with a long horizontal flourish extending to the right.

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
cutrightrl@stoneenergy.com
304-225-1789 (Direct)

Received
Office of Oil & Gas
APR 30 2015

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Stone Energy Corporation 494490923 Wetzel Green Porters Falls
Operator ID County District Quadrangle

2) Operator's Well Number: #13HU Well Pad Name: Starkweather

3) Farm Name/Surface Owner: Starkweather, Heath & Charmine Public Road Access: Wetzel County Route 20/1

4) Elevation, current ground: 1,280' Elevation, proposed post-construction: 1,258'

5) Well Type (a) Gas X Oil Underground Storage
Other Horizontal well with pilot hole
(b) If Gas Shallow Deep X
Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
The well will target the Utica/Point Pleasant formations @ 11,467' TVD (-10,209' SS), 350' thick w/ RP = 9,200 - 9,700 psig.
DMH 4-28-15

8) Proposed Total Vertical Depth: 11,742'

9) Formation at Total Vertical Depth: Utica/Point Pleasant

10) Proposed Total Measured Depth: 19,400'

11) Proposed Horizontal Leg Length: 6,920 from the LP & 8,378 from the KOP

12) Approximate Fresh Water Strata Depths: 404', 489', 669' & 1,074'

13) Method to Determine Fresh Water Depths: When having to soap wellbore or show of fluid at end of flow line

14) Approximate Saltwater Depths: 2,289' & 2,354'

15) Approximate Coal Seam Depths: 589', 934' & 1,069'

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

(a) If Yes, provide Mine Info: Name:
Depth:
Seam:
Owner:

Received
Office of Oil & Gas

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24.0	New	LS	94.0	80'	80'	77 - CTS
Fresh Water/Coal	18.625	New	H40	97.5	1,275' KB / 1,254' GL	1,275' KB / 1,254' GL	2,180 - CTS
Intermediate 1	13.375	New	J55	54.5	2,540'	2,540'	Lead-1,641 Tail-550 CTS
Intermediate 2	9.625	New	P110	53.5	8,815'	8,815'	Lead-2,354 Tail-439 TOC @ 1,480'
Production	5.5	New	P110	26.0		19,400	3,257 - TOC @ 6,315'
Tubing							
Liners							

Note: The Fresh Water/Coal casing setting depth is just above Sea Level. At no time will the casing be set below Sea Level. This setting depth is due to sloughing formation below the deepest coal seam.

JMH 4-28-15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24.0	26.0	0.375	1,180	944	Type 1	1.18
Fresh Water/Coal	18.625	22.0	0.435	1,630	1,304	HalCem	1.198
Intermediate 1	13.375	17.5	0.380	2,730	2,184	HalCem	Lead-1.198 Tail-1.223
Intermediate 2	9.625	12.25	0.545	10,900	8,720	HalCem	Lead-2.98 Tail-1.29
Production	5.5	8.75	0.361	14,520	11,616	VariCem	1.22
Tubing							
Liners							

PACKERS

Kind:	TAM CAP Inflatable			
Sizes:	13.375"			
Depths Set:	1,000'			

Received
Office of Oil & Gas
APR 30 2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drilling will consist of the use of three rigs. First a conductor rig will be MIRU to set and cement 24.0" conductor back to surface. RDMO conductor rig. The second rig (Top Hole) will be MIRU and it will drill and cement back to surface both the 18.625" and 13.375" casing strings. It will then drill the 12.25" hole to just above the Salina Salt formation. The well will be loaded from TD to surface with 3-6% KCl fluid and a gyro run inside of the drill string to TD to obtain well bore placement. RDMO Top Hole Rig. MIRU Horizontal Rig to finish drilling the 12.25" hole section and setting the 9.625" casing and cementing to ~1,000' inside the 13.375" casing. The well will then be directionally drilled to TD, 5.5" production casing run and cemented back to 2,500 inside the 9.625" casing string. After the installation of the night cap the Rig will then skid to the next pad well or move to a new location/pad.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Stimulation will begin by MIRU of coil tubing unit or service rig. The 5.5" casing is then cleaned out to the PBTD and a CBL is then run to approximately 30-60 degrees in the curve and pulled to surface. The next step is to perforate the toe stage. A stimulation company is then MIRU and the toe stage is fractured. Anticipated pressures is 9,000 psi with between 85 & 90 bmp pump rate. Each subsequent stage is then perforated after a pump down frac plug is set and the stage is perforated. After all stages are completed the well is SI and the stimulation company is RDMO. A coil tubing unit or service rig with snubbing unit is then MIRU and the frac plugs are drilled out and the 5.5" casing cleared to the PBTD. The rig is then RDMO and a flow back crew is RU to flow back the free water to frac tanks. Once well begins to gas it is either flared or placed in line through a separator and produced. The well is next turned over to production and the flow back crew is RDMO.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 10.6

22) Area to be disturbed for well pad only, less access road (acres): 7.4

23) Describe centralizer placement for each casing string:

DMH 4-28-15

The fresh water/coal string will incorporate the use use of bow spring centralizers beginning generally on joint 2 to surface on every third joint. The intermediate strings 1 & 2 will incorporate bow spring centralizers with one on joint 2 and then every fourth joint to surface. The production string will use alternating left and right rigid spiral centralizers beginning on joint 2 and then every fourth joint to the pup joint 100' above the KOP. From there bow spring centralizers will be used on every third joint from the KOP to TOC.

24) Describe all cement additives associated with each cement type:

Fresh water/coal string and intermediate strings 1 & 2 will be cemented using HalCem which is a Class "A" cement with 0.25 pps Pol-E-Flake with up to 2% CaCl. The production string will be cemented with VariCem which is a Class "A" that can be mixed at different weights.

25) Proposed borehole conditioning procedures:

- The 20.0" and 17.5" hole sections will be conditioned using air and/or soap until cuttings are removed from the well bore.
- The 12.25" section will be conditioned using air and/or stiff foam until cuttings have been removed from the well bore.
- The 8.75" section will be conditioned with a minimum of three bottoms up of drill pipe (and the shakers screens are clear of cuttings).

Office of Oil & Gas

*Note: Attach additional sheets as needed.

APR 30 2015

Well: Starkweather #13HU
 State: West Virginia
 County: Wetzel
 District: Green
 Prospect: Mary
 Location: Surface: Lat = 39.5749995° N & Long = 80.788046° W / (N) 4,380,609' (E) 518,204' (UTM - NAD83, Zone 17)
 Permitted BHL: Lat = 39.594170° N & Long = 80.798819° W / (N) 4,382,735' (E) 517,274' (UTM - NAD83, Zone 17)
 Proposed TD: 19400' MD / 11680' TVD

PROPOSED HORIZONTAL

Revision: 28-Jan-15

Permit Number: 47-103-03065
 Permit Issued:
 Post Construction Ground Elevation: 1258'
 Kelly Bushing: 21'
 Rig:
 Spud Date:
 TD Date:
 Rig Release Date:

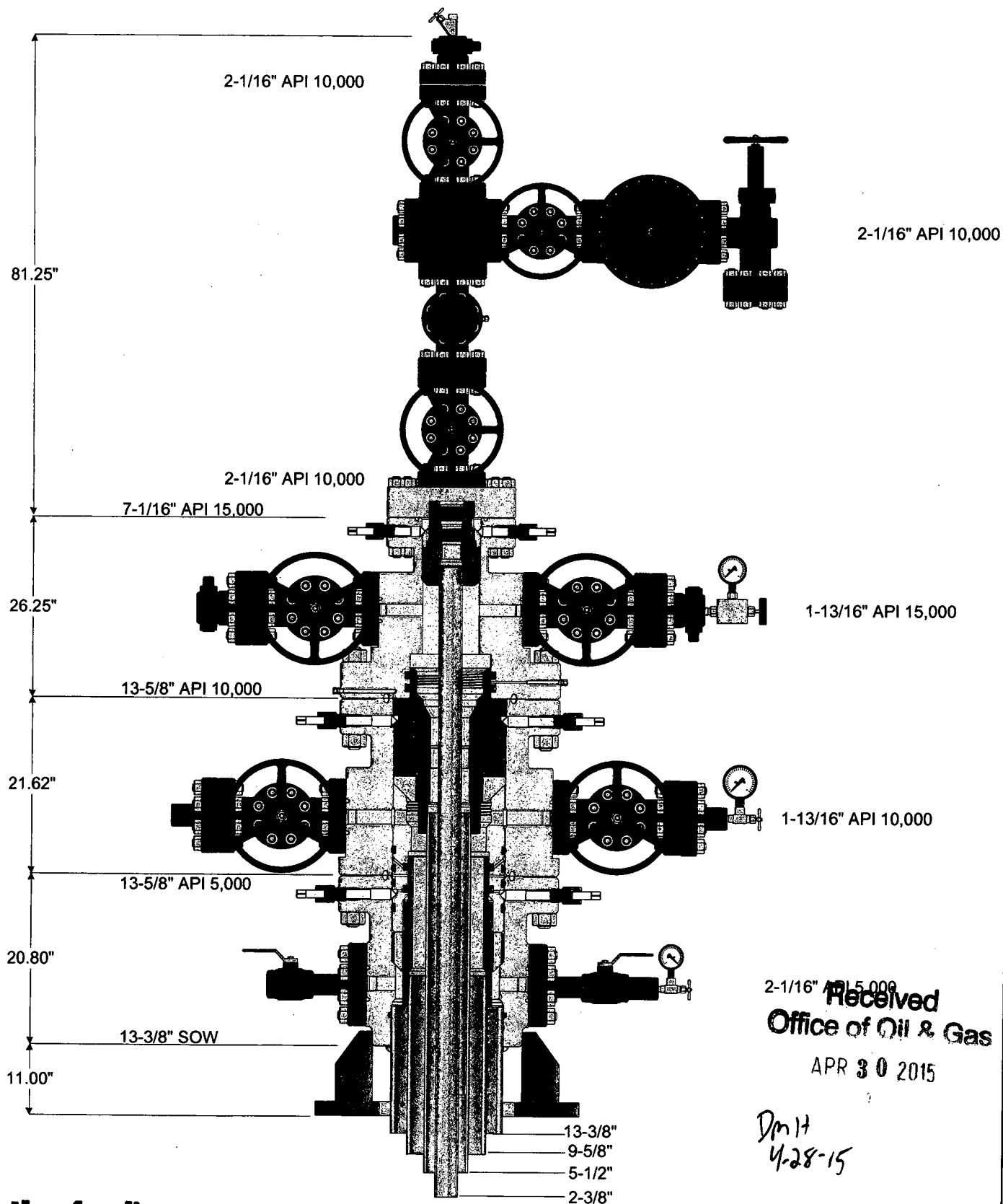
HOLE SIZE	PILOT HOLE FORMATION TOPS	WELLBORE DIAGRAM	CASING & CEMENTING DATA DIRECTIONAL DATA	MW & FLUID TYPE	HOLE DEV.	
Pre-Set Conductor	101' KB (80' BGL) Shallowest FW ##### Coal ##### Coal ##### Pittsburgh Coal 1069' TVD Deepest FW 1074' TVD 1275' TVD		CONDUCTOR PIPE 24" x 3/8" wall L/S PE @ 101' (set in bedrock & grouted to surface)	Air / Mist	Vertical	
22" Hole (Hammer)	RED BEDS Little Lime 2187' TVD Big Lime 2217' TVD Shallowest SW 2289' TVD Big Injun Sandstone 2297' TVD Base of Big Injun 2397' TVD 2540' TVD		SURFACE CASING 18-5/8" 87.5# H-40 STC @ 1275' MD/TVD - 1254' GL Set through fresh water zones Set through coal zones Cemented to surface	Air / Dust	Vertical	
17-1/2" Hole (Hammer)	Weir 2677' TVD Berea Sandstone 2867' TVD Gordon Sandstone 3057' TVD Elizabeth 3787' TVD Warren Shale 3847' TVD Benson Shale 5227' TVD Alexander Shale 5617' TVD Rhinstreet Shale 6197' TVD Cashaqua 6647' TVD Middlesex Shale 6761' TVD West River Shale 6802' TVD Genesee Shale 6847' TVD Tully Limestone 6877' TVD Hamilton Shale 6922' TVD Marcellus Shale 6947' TVD Onondaga Limestone 7001' TVD Huntersville Chert 7021' TVD Oriskany Sandstone 7247' TVD Helderberg Limestone 7317' TVD Bass Island Dolomite 7577' TVD Salina Salt 7817' TVD Newburg Dolomite 8685' TVD 8815' TVD		1st INTERMEDIATE CASING 13-3/8" 54.5# J-55 STC @ 2540' MD/TVD Set through potential salt water zones Set below base of Big Injun Cemented to surface		Vertical	
12-1/4" Hole (Hammer)				Air / Dust		
8-1/2" Hole to Pilot Hole TD (Hammer / Insert Bits)	Keefer Sandstone 9002' TVD Niagran/Rose Hill 9092' TVD Packer Shell Limestone 9407' TVD Clinton/Tuscarora SS 9577' TVD Queenston/Junita 9717' TVD Martinsburg/Reedsville 10490' TVD		2nd INTERMEDIATE CASING 9-5/8" 53.5# P-110 LTC @ 8815' MD/TVD Set through Salina salt Cemented to 1480'	Air / Dust	Vertical	
8-1/2" Hole from KOP to LP (PDC / Insert Bits)	Utica Shale 11467' TVD		KOP @ 11022' MD/TVD	SBM In Curve	Vertical	
8-1/2" Hole in Lateral (PDC)	Point Pleasant 11707' TVD			SBM in Lateral	~90.5°	
	Trenton Limestone 11817' TVD					
Notes: Formation tops as per vertical pilot hole Curve & lateral tops will vary due to structural changes Directional plan based upon best estimate of structure			Landing Point (LP) @ 12480' MD / 11742' TVD ~90.5° angle ~325° azimuth			
			TD @ 19400' MD / 11680' TVD PRODUCTION CASING 5-1/2" 23.0# P-110 Premium Conn @ 19400' MD Top of Cement @ ~6315' (2500' inside 9-5/8")			

Received

Office of Oil & Gas

APR 30 2015

NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THIS DRAWING ARE ESTIMATED DIMENSIONS AND ARE FOR REFERENCE ONLY.



2-1/16" API 15,000
Received
Office of Oil & Gas
 APR 30 2015

Dm17
 4-28-15



Weatherford

© 2014 Weatherford All rights reserved

Customer: STONE ENERGY

Project No.: 97141

Quote No.: 207578

Project Name: UTICA

Date: 02/26/2014

Drawn By: SS

STARKWEATHER #13HU

(SEE PAGE 2 OF 2 FOR PLAT)

LATITUDE 39°35'00"

LONGITUDE 80°45'00"

LAT. 39°34'29.7"

**STARKWEATHER #13HU
SURFACE HOLE**

STATE PLANE
COORDINATES
NORTH ZONE-NAD 27
(N) 304112
(E) 1088884

L & L DECIMAL
NAD 27
38.57482
80.78822

UTM (NAD 83)
ZONE 17
METERS
4880800
518204

**STARKWEATHER #13HU
LANDING POINT**

STATE PLANE
COORDINATES
NORTH ZONE-NAD 27
(N) 306514
(E) 1037877

L & L DECIMAL
NAD 27
38.57982
80.78550

UTM (NAD 83)
ZONE 17
METERS
4861132
518497

**STARKWEATHER #13HU
BOTTOM HOLE**

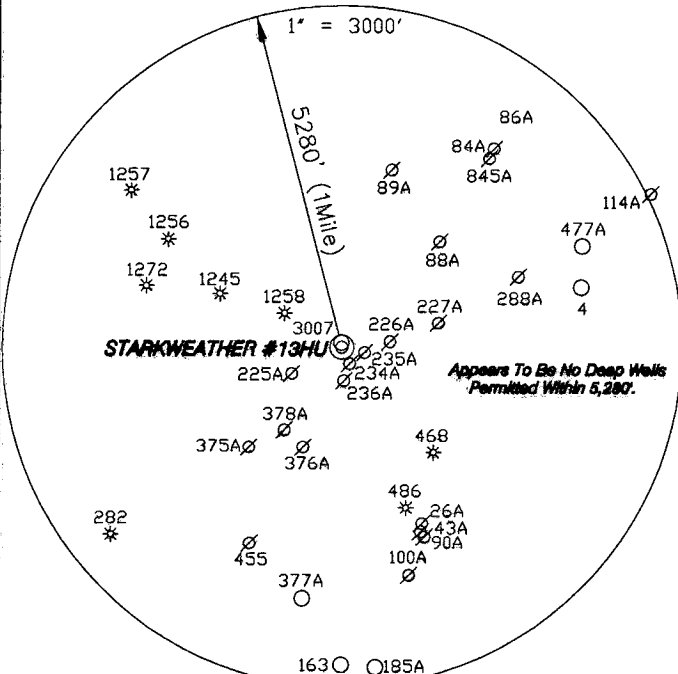
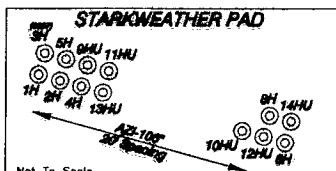
STATE PLANE
COORDINATES
NORTH ZONE-NAD 27
(N) 401138
(E) 1033040

L & L DECIMAL
NAD 27
38.59409
80.78880

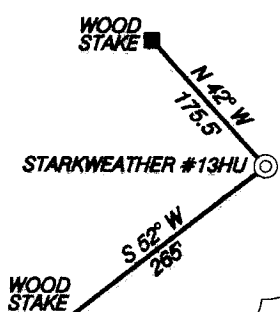
UTM (NAD 83)
ZONE 17
METERS
4382735
517274

STARKWEATHER #9HU

TRACT ID	LESSOR	LEASED ACRES	UNIT ACRES
A	CHARMAINE A. STARKWEATHER, et al	36.0±	18.0±
B	CHARMAINE A. STARKWEATHER, et al	51.0±	20.5±
C	BLUE RIDGE GAS PARTNERS	78.13±	70.3±
D	BLUE RIDGE GAS PARTNERS, LLC	63.0±	0.008±
E	BLUE RIDGE GAS PARTNERS	60.0±	28.4±
F	DAVID A. CONNER, et al	97.0±	7.1±
G	CHESAPEAKE APPLACHIA, LLC	98.00±	88.9±
H	GASTAR EXPLORATION, et al	138.98±	0.3±
I	GASTAR EXPLORATION, et al	31.64±	4.5±
J	GASTAR EXPLORATION, et al	50.0±	32.2±
K	ROBERT A. POWELL, et al	33.0±	2.8±
L	CENTRAL MICHIGAN EXPLORATION, et al	32.0±	28.1±
M	ERNESTINE BELLA BONNER, et al	55.18±	55.18±
N	ERNESTINE BELLA BONNER, et al	0.67±	0.67±
O	ERNESTINE BELLA BONNER, et al	0.62±	0.62±
P	ELLA JANE MOORE SMITH, et al	0.34±	0.34±
Q	ROY K. & CARLA J. HARRISON, et al	3.764±	3.764±
R	ROY K. & CARLA J. HARRISON, et al	2.0±	2.0±
S	STANLEY PITTMAN, et al	0.3±	0.3±
T	PATRICIA L. LEASURE	0.5±	0.5±
U	TAMMY LYNN WATSON	0.25±	0.25±
V	ALBERT L. & MARY L. HOBBS	2.19±	2.19±
W	LARRY C. HOBBS & LYN D. HOBBS	3.0±	3.0±
X	ERNESTINE BELLA BONNER, et al	1.4±	1.4±
Y	GARY K. & JANE W. WATSON, et al	2.3±	2.3±
Z	MARK I. COCHRAN	4.0±	4.0±
AA	ALLGHEBY WOOD, et al	206.0±	23.4±
BB	CENTRAL MICHIGAN EXPLORATION, et al	70.63±	2.5±
CC	CENTRAL MICHIGAN EXPLORATION, et al	144.0±	8.0±
DD	ALLGHEBY WOOD, et al	0.40±	0.40±
EE	BLUE RIDGE GAS PARTNERS	78.12±	78.12±
FF	BLUE RIDGE GAS PARTNERS	1.78±	1.78±
GG	BLUE RIDGE GAS PARTNERS	1.04±	1.04±
HH	BLUE RIDGE GAS PARTNERS	30.90±	30.90±
II	BLUE RIDGE GAS PARTNERS	1.0±	1.0±
JJ	CHARMAINE A. STARKWEATHER, et al	60.0±	7.7±
		UNIT TOTAL	541.24±

**REFERENCES**

1" = 200'

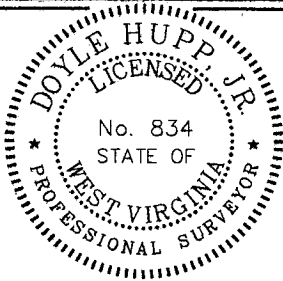
**NOTES ON SURVEY**

1. NO DWELLINGS WITHIN 625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD 27.
4. WELL LAT./LONG. ESTABLISHED BY SG-GPS(OPUS).
5. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN DECEMBER, 2015 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WYDEP.
7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
8. VOLUNTARY POOLING
9. THIS PLAT AND/OR THE DEPICTIONS ARE UNDER NO CIRCUMSTANCES TO BE CONSTRUED AS ANY TYPE OF BOUNDARY SURVEY. THIS PLAT IS FOR OIL & GAS PURPOSES ONLY AND IS CREATED FOR THE USE OF THE WELL OPERATOR(S) ONLY.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S.
834

Doyle Hupp Jr.
HUPP Surveying & Mapping
P.O. Box 647 Grantsville, WV 26147
(304) 354-7035 EMAIL: hupp@frontiernet.net



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE APRIL 21, 20 15OPERATORS WELL NO. STARKWEATHER #13HUAPI
WELL NO. 47-103-
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. W2173 (BK 59-35)
PROVEN SOURCE OF ELEVATION SG-GPS (OPUS) SCALE 1" = 1000'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



WELL TYPE : OIL GAS X LIQUID WASTE IF
"GAS" PRODUCTION X STORAGE DEEP X SHALLOW

LOCATION : ELEVATION 1,280' WATERSHED FISHING CREEK

DISTRICT GREEN COUNTY WETZEL QUADRANGLE PORTERS FALLS 7.5'

SURFACE OWNER HEATH & CHARMAINE STARKWEATHER ACREAGE 36±

ROYALTY OWNER HEATH & CHARMAINE STARKWEATHER, et al LEASE ACREAGE 541.24±

PROPOSED WORK : LEASE NO.

DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD

FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION UTICA

 ESTIMATED DEPTH TVD 11,680' MD 19,400'

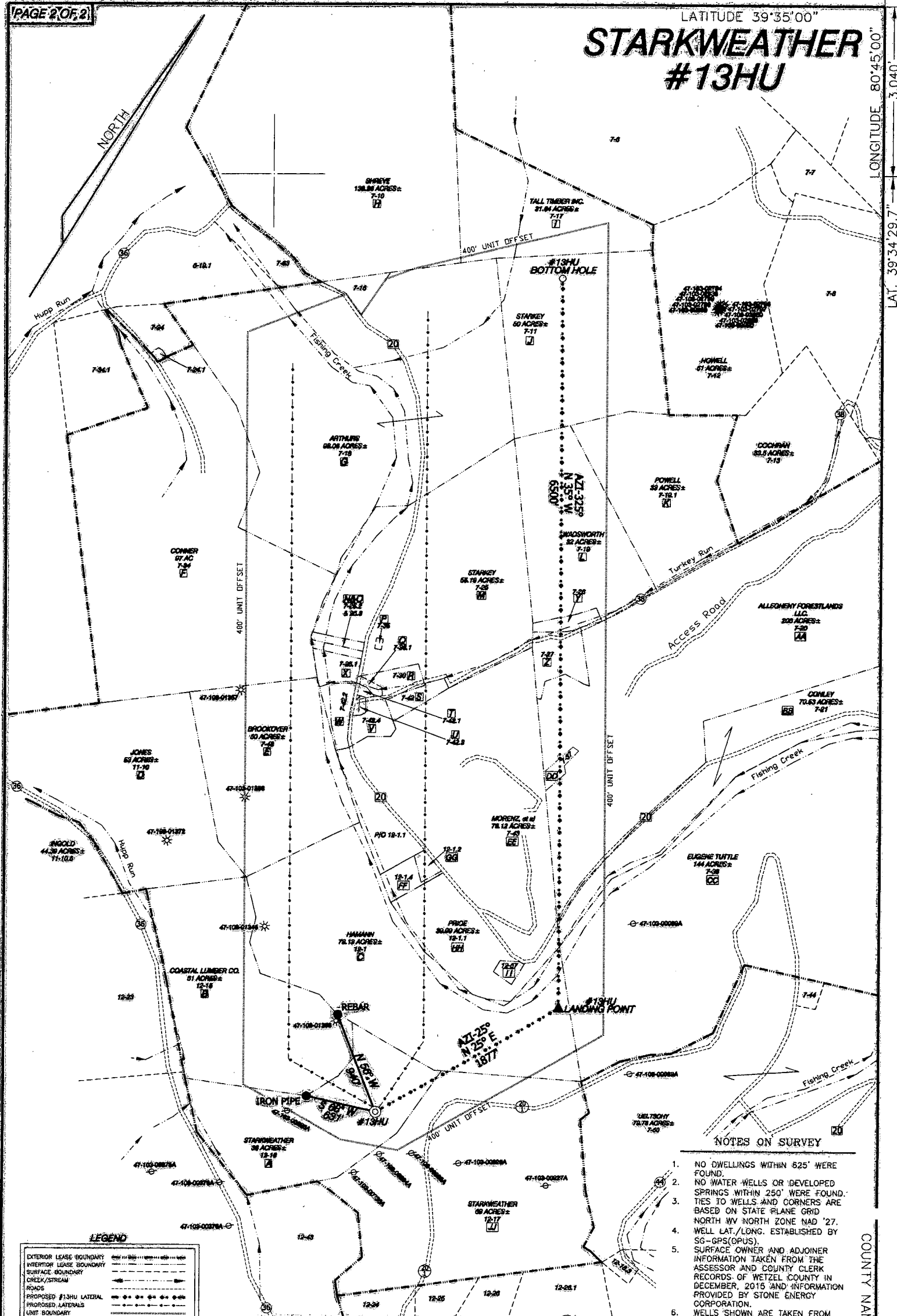
WELL OPERATOR STONE ENERGY CORPORATION DESIGNATED AGENT TIM MCGREGOR

ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508 ADDRESS 1300 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

COUNTY NAME

PERMIT

STARKWEATHER #13HU

 LONGITUDE 80°45'00"
LAT. 39°34'29.7"


LEGEND

EXTERIOR LEASE BOUNDARY	---
INTERIOR LEASE BOUNDARY	---
SURFACE BOUNDARY	---
CREEK/STREAM	---
ROADS	---
PROPOSED #13HU LATERAL	---
PROPOSED LATERALS	---
UNIT BOUNDARY	---
UNIT TRACT	---
PERMITTED WELL	★
ROAD/ROUTE NUMBER	20

NOTES ON SURVEY

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HUPP Surveying & Mapping
P.O. Box 647 Grantsville, WV 26147
(304) 354-7035 EMAIL: hupp@frontiernet.net

API WELL NO. 47-103-
STATE COUNTY PERMIT
DATE APRIL 21, 2015
OPERATORS WELL NO. STARKWEATHER #13HU

WELL OPERATOR STONE ENERGY CORPORATION

DESIGNATED AGENT TIM MCGREGOR

ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508

ADDRESS 1300 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

COUNTY NAME PERMIT



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Chesapeake Appalachia, LLC
6100 North Western Avenue
Oklahoma City, OK 73118

RE: Intentional Deviation of New Deep Well – Starkweather 13HU

Dear Sir:

Please be advised that Stone Energy Corporation has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by May 26, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

WesBanco
1 Bank Plaza
Wheeling, WV 26003

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If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated

Offset Operators
Starkweather 13HU

District	Tax Map	Parcel	Lessee/Non-Leased	Address
5	7	10	Chesapeake Appalachia, LLC	6100 North Western Ave. Oklahoma City, OK 73118
5	7	16	David B. Loy	RR 2, Box 163 New Martinsville, WV 26155
5	7	6	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	12	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	13	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	21	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	50	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	15	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	1.2	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	1.4	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	36	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42.4	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	18	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	43	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508

EX. 5

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



November 24, 2014

Oil and Gas Conservation Commission
Department of Environmental Protection
Attention: Cindy Raines
601 57th Street
Charleston, WV 25304

Re: Application for W. Va. CSR § 39-1-4.2 Spacing Exception for the Starkweather #9HU,
#11HU, and #13HU

Dear Ms. Raines:

Pursuant to W. Va. CSR § 39-1-4.3, please find enclosed an original and two copies of Stone Energy Corporation's ("Stone") supplemental application for exception to the 3000' spacing requirement set forth in W. Va. CSR § 39-1-4.2

Should you have any questions, please feel free to contact me.

Respectfully,

A handwritten signature in black ink that reads "Roger L. Cutright". The signature is fluid and cursive, with a long horizontal stroke at the end.

Roger Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE SUPPLEMENTAL APPLICATION BY STONE ENERGY CORPORATION, A DELAWARE CORPORATION, FOR AN EXCEPTION TO THE 3000' SPACING REQUIREMENT SET FORTH IN W. VA. CSR § 39-1-4.2

DOCKET NO. _____
CASE NO. _____

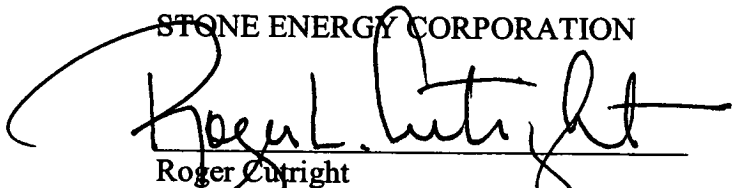
SUPPLEMENTAL APPLICATION FOR SPACING EXCEPTION

NOW COMES STONE ENERGY CORPORATION, a Delaware corporation, ("Applicant") and gives notice of its intention to direct the bottom of the Starkweather #9HU, #11HU, and #13HU wells away from vertical and, pursuant to W. Va. CSR § 39-1-4.3, requests an exception to the 3,000' spacing requirement set forth in W. Va. CSR § 39-1-4.2. In support of its Supplemental Application, Applicant states as follows:

1. Applicant is a Delaware corporation engaged in the production of oil and gas within the State of West Virginia and is an operator within the meaning of W. Va. Code § 22C-9-2(a)(4). The Applicant is a qualified and experienced operator of oil and gas wells, including horizontal wells, in West Virginia. The Applicant's address is: Stone Energy Corporation, 1300 Fort Pierpont Drive, Suite 201, Morgantown, WV 26508.
2. Applicant has submitted with this Supplemental Application for Spacing Exception well work permit applications for the Starkweather #9HU, #11HU, and #13HU deep wells (each with a Utica target formation).
3. Applicant will form an approximate 640-acre voluntary unit around the Starkweather #9HU, #11HU, and #13HU deep wells (the "Starkweather Unit A").
4. The Starkweather #9HU, #11HU, and #13HU deep wells are planned for a 500' lateral offset. Applicant believes such spacing will allow for the most efficient development of the oil and gas within the Starkweather Unit A and minimize the potential for waste.

WHEREFORE, Applicant respectfully requests that this Commission conduct such hearings as are required by law regarding the exception requested and enter an order approving such exception.

STONE ENERGY CORPORATION



Roger Cutright
Appalachia Land Manager and Special
Counsel
1300 Fort Pierpont Drive, Suite 201
Morgantown, WV 26508
304-225-1789

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



November 24, 2014

Oil and Gas Conservation Commission
Department of Environmental Protection
Attention: Cindy Raines
601 57th Street
Charleston, WV 25304

Re: Application for W. Va. CSR § 39-1-4.2 Spacing Exception for the Starkweather #9HU,
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Dear Ms. Raines:

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Respectfully,

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Roger Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE SUPPLEMENTAL APPLICATION BY STONE ENERGY CORPORATION, A DELAWARE CORPORATION, FOR AN EXCEPTION TO THE 3000' SPACING REQUIREMENT SET FORTH IN W. VA. CSR § 39-1-4.2

DOCKET NO. _____
CASE NO. _____

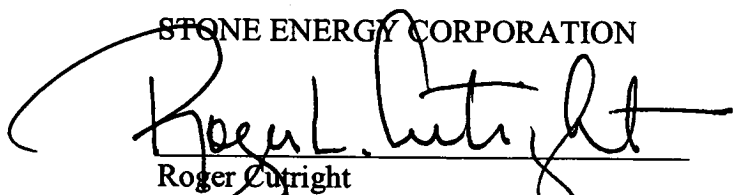
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STONE ENERGY CORPORATION



Roger Cutright
Appalachia Land Manager and Special
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1300 Fort Pierpont Drive, Suite 201
Morgantown, WV 26508
304-225-1789

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



November 24, 2014

Oil and Gas Conservation Commission
Department of Environmental Protection
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Roger Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
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IN THE MATTER OF THE SUPPLEMENTAL APPLICATION BY STONE ENERGY CORPORATION, A DELAWARE CORPORATION, FOR AN EXCEPTION TO THE 3000' SPACING REQUIREMENT SET FORTH IN W. VA. CSR § 39-1-4.2

DOCKET NO. _____
CASE NO. _____

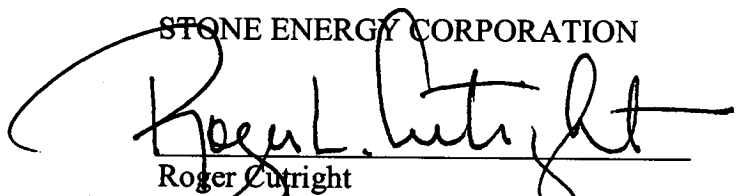
SUPPLEMENTAL APPLICATION FOR SPACING EXCEPTION

NOW COMES STONE ENERGY CORPORATION, a Delaware corporation, ("Applicant") and gives notice of its intention to direct the bottom of the Starkweather #9HU, #11HU, and #13HU wells away from vertical and, pursuant to W. Va. CSR § 39-1-4.3, requests an exception to the 3,000' spacing requirement set forth in W. Va. CSR § 39-1-4.2. In support of its Supplemental Application, Applicant states as follows:

1. Applicant is a Delaware corporation engaged in the production of oil and gas within the State of West Virginia and is an operator within the meaning of W. Va. Code § 22C-9-2(a)(4). The Applicant is a qualified and experienced operator of oil and gas wells, including horizontal wells, in West Virginia. The Applicant's address is: Stone Energy Corporation, 1300 Fort Pierpont Drive, Suite 201, Morgantown, WV 26508.
2. Applicant has submitted with this Supplemental Application for Spacing Exception well work permit applications for the Starkweather #9HU, #11HU, and #13HU deep wells (each with a Utica target formation).
3. Applicant will form an approximate 640-acre voluntary unit around the Starkweather #9HU, #11HU, and #13HU deep wells (the "Starkweather Unit A").
4. The Starkweather #9HU, #11HU, and #13HU deep wells are planned for a 500' lateral offset. Applicant believes such spacing will allow for the most efficient development of the oil and gas within the Starkweather Unit A and minimize the potential for waste.

WHEREFORE, Applicant respectfully requests that this Commission conduct such hearings as are required by law regarding the exception requested and enter an order approving such exception.

STONE ENERGY CORPORATION



Roger Cutright
Appalachia Land Manager and Special
Counsel
1300 Fort Pierpont Drive, Suite 201
Morgantown, WV 26508
304-225-1789



1300 Fort Pierpont
Suite 201
Morgantown, West Virginia 26508
Telephone: (304) 225-1600

April 28, 2015

RE: Modifications to Starkweather 9HU, Starkweather 11HU, Starkweather 13HU, Well Work Permit Applications

Enclosed please find modifications for the Starkweather 9HU, Starkweather 11HU, and Starkweather 13HU well work permit applications previously submitted.

Please contact me or Danielle Snoderly (304.225.1775) if you have any questions.

A handwritten signature in black ink, reading "Roger L. Cutright". The signature is fluid and cursive, with the first name "Roger" and last name "Cutright" clearly legible.

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
cutrightrl@stoneenergy.com
304-225-1789 (Direct)

Received
Office of Oil & Gas
APR 30 2015

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Stone Energy Corporation 494490923 Wetzel Green Porters Falls
Operator ID County District Quadrangle

2) Operator's Well Number: #11HU Well Pad Name: Starkweather

3) Farm Name/Surface Owner: Starkweather, Heath & Charmine Public Road Access: Wetzel County Route 20/1

4) Elevation, current ground: 1,280' Elevation, proposed post-construction: 1,258'

5) Well Type (a) Gas X Oil Underground Storage
Other Horizontal well with pilot hole
(b) If Gas Shallow Deep X
Horizontal X

6) Existing Pad: Yes or No Yes *DmH 4-28-15*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
The well will target the Utica/Point Pleasant formations @ 11,467' TVD (-10,209' SS), 350' thick w/ RP = 9,200 - 9,700 psig. ✓

8) Proposed Total Vertical Depth: 11,742'

9) Formation at Total Vertical Depth: Utica/Point Pleasant ✓

10) Proposed Total Measured Depth: 18,700'

11) Proposed Horizontal Leg Length: 6,440 from the LP & 7,678 from the KOP

12) Approximate Fresh Water Strata Depths: 404', 489', 669' & 1,074'

13) Method to Determine Fresh Water Depths: When having to soap wellbore or show of fluid at end of flow line

14) Approximate Saltwater Depths: 2,289' & 2,354'

15) Approximate Coal Seam Depths: 589', 934' & 1,069'

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

(a) If Yes, provide Mine Info: Name:
Depth:
Seam:
Owner:

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Office of Oil & Gas
APR 30 2015

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24.0	New	LS	94.0	80'	80'	77 - CTS
Fresh Water/Coal	18.625	New	H40	97.5	1,275' KB / 1,254' GL	1,275' KB / 1,254' GL	2,180 - CTS
Intermediate 1	13.375	New	J55	54.5	2,540'	2,540'	Lead-1,641 Tail-550 CTS
Intermediate 2	9.625	New	P110	53.5	8,815'	8,815'	Lead-2,354 Tail-439 TOC @ 1,480'
Production	5.5	New	P110	26.0		18,700	3,087 - TOC @ 6,315'
Tubing							
Liners							

Note: The Fresh Water/Coal casing setting depth is just above Sea Level. At no time will the casing be set below Sea Level. This setting depth is due to sloughing formation below the deepest coal seam.

DMH
4-28-15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24.0	26.0	0.375	1,180	944	Type 1	1.18
Fresh Water/Coal	18.625	22.0	0.435	1,630	1,304	HalCem	1.198
Intermediate 1	13.375	17.5	0.380	2,730	2,184	HalCem	Lead-1.198 Tail-1.223
Intermediate 2	9.625	12.25	0.545	10,900	8,720	HalCem	Lead-2.98 Tail-1.29
Production	5.5	8.75	0.361	14,520	11,616	VariCem	1.22
Tubing							
Liners							

PACKERS

Kind:	TAM CAP Inflatable			
Sizes:	13.375"			Received
Depths Set:	1,000'			Office of Oil & Gas APR 30 2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drilling will consist of the use of three rigs. First a conductor rig will be MIRU to set and cement 24.0" conductor back to surface. RDMO conductor rig. The second rig (Top Hole) will be MIRU and it will drill and cement back to surface both the 18.625" and 13.375" casing strings. It will then drill the 12.25" hole to just above the Salina Salt formation. The well will be loaded from TD to surface with 3-6% KCl fluid and a gyro run inside of the drill string to TD to obtain well bore placement. RDMO Top Hole Rig. MIRU Horizontal Rig to finish drilling the 12.25" hole section and setting the 9.625" casing and cementing to ~1,000' inside the 13.375" casing. The well will then be directionally drilled to TD, 5.5" production casing run and cemented back to 2,500 inside the 9.625" casing string. After the installation of the night cap the Rig will then skid to the next pad well or move to a new location/pad.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Stimulation will begin by MIRU of coil tubing unit or service rig. The 5.5" casing is then cleaned out to the PBTD and a CBL is then run to approximately 30-60 degrees in the curve and pulled to surface. The next step is to perforate the toe stage. A stimulation company is then MIRU and the toe stage is fractured. Anticipated pressures is 9,000 psi with between 85 & 90 bmp pump rate. Each subsequent stage is then perforated after a pump down frac plug is set and the stage is perforated. After all stages are completed the well is SI and the stimulation company is RDMO. A coil tubing unit or service rig with snubbing unit is then MIRU and the frac plugs are drilled out and the 5.5" casing cleared to the PBTD. The rig is then RDMO and a flow back crew is RU to flow back the free water to frac tanks. Once well begins to gas it is either flared or placed in line through a separator and produced. The well is next turned over to production and the flow back crew is RDMO.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 10.6

22) Area to be disturbed for well pad only, less access road (acres): 7.4

23) Describe centralizer placement for each casing string:

Dmt 4-28-15

The fresh water/coal string will incorporate the use use of bow spring centralizers beginning generally on joint 2 to surface on every third joint. The intermediate strings 1 & 2 will incorporate bow spring centralizers with one on joint 2 and then every fourth joint to surface. The production string will use alternating left and right rigid spiral centralizers beginning on joint 2 and then every fourth joint to the pup joint 100' above the KOP. From there bow spring centralizers will be used on every third joint from the KOP to TOC.

24) Describe all cement additives associated with each cement type:

Fresh water/coal string and intermediate strings 1 & 2 will be cemented using HalCem which is a Class "A" cement with 0.25 pps Pol-E-Flake with up to 2% CaCl. The production string will be cemented with VariCem which is a Class "A" that can be mixed at different weights.

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Office of Oil & Gas

APR 30 2015

25) Proposed borehole conditioning procedures:

- The 20.0" and 17.5" hole sections will be conditioned using air and/or soap until cuttings are removed from the well bore.
- The 12.25" section will be conditioned using air and/or stiff foam until cuttings have been removed from the well bore.
- The 8.75" section will be conditioned with a minimum of three bottoms up of drilling fluid (mud) and the shakers screens are clear of cuttings.

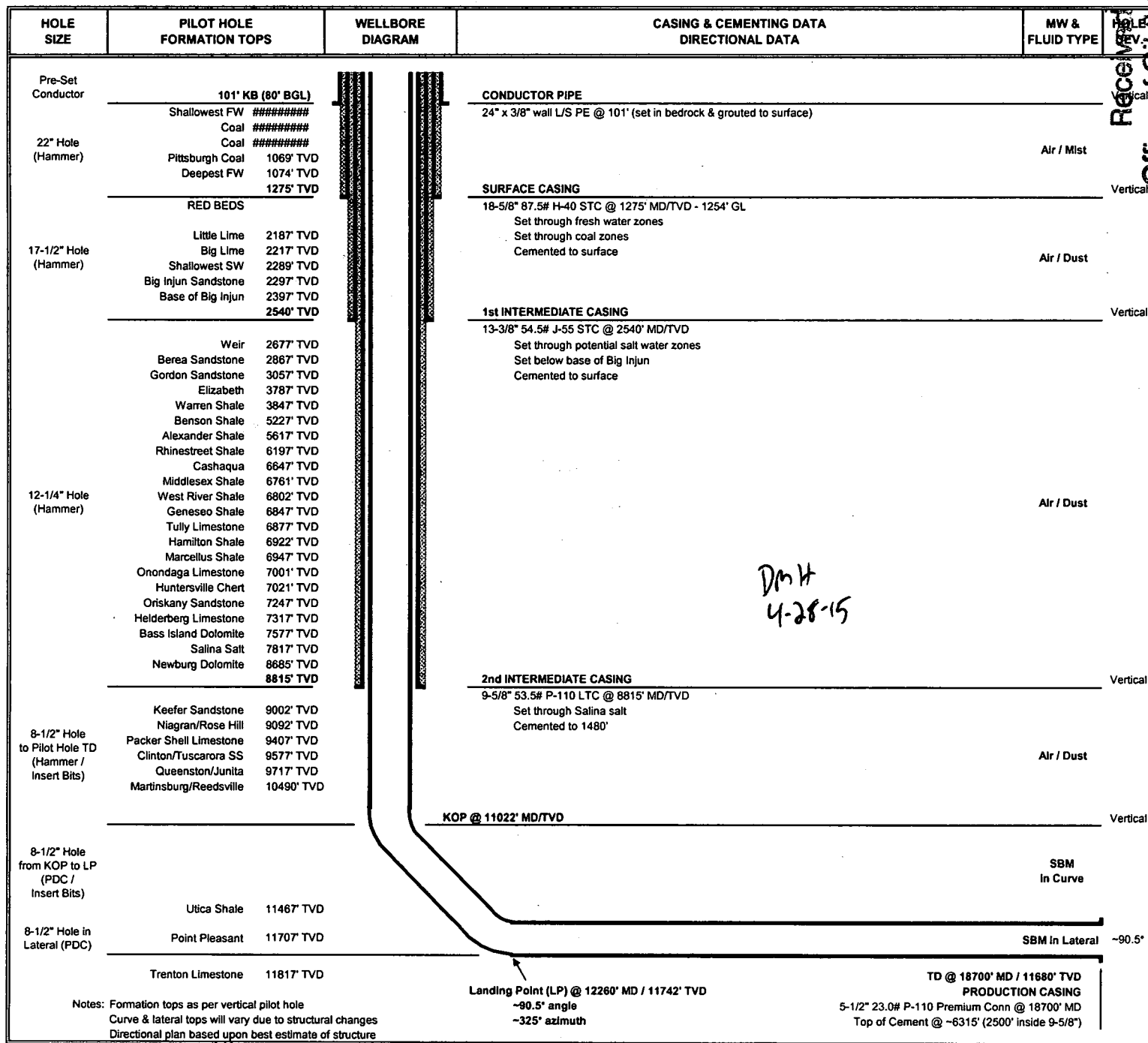
*Note: Attach additional sheets as needed.

Well: Starkweather #11HU
 State: West Virginia
 County: Wetzel
 District: Green
 Prospect: Mary
 Location: Surface: Lat = 39.575049° N & Long = 80.788023° W / (N) 4,380,615' (E) 518,206' (UTM - NAD83, Zone 17)
 Permitted BHL: Lat = 39.591580° N & Long = 80.801645° W / (N) 4,382,447' (E) 517,032' (UTM - NAD83, Zone 17)
 Proposed TD: 18700' MD / 11680' TVD

PROPOSED HORIZONTAL

Revision: 28-Jan-15

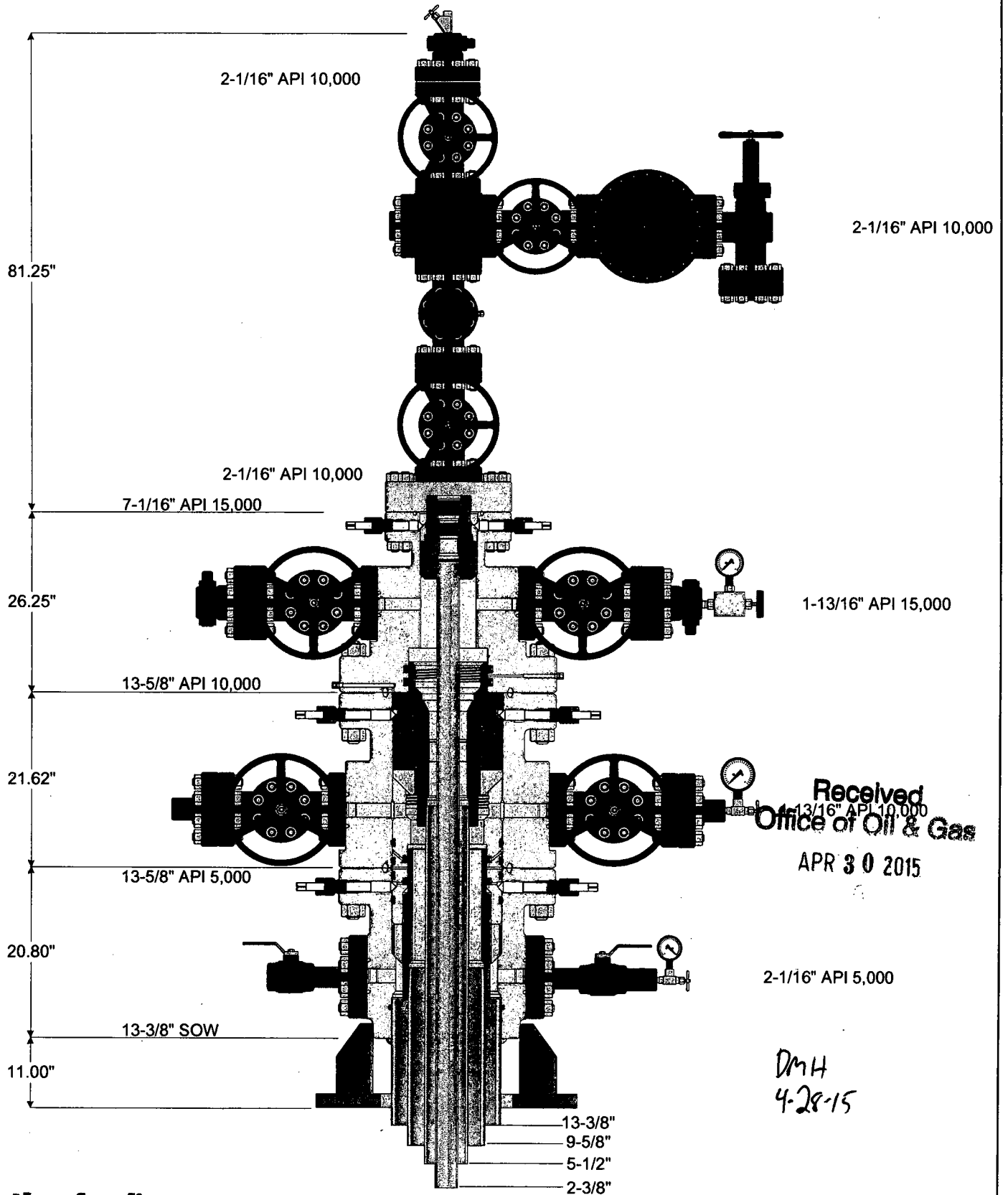
Permit Number: 47-103-03064
 Permit Issued:
 Post Construction Ground Elevation: 1258'
 Kelly Bushing: 21'
 Rig:
 Spud Date:
 TD Date:
 Rig Release Date:



Received
Office of Oil & Gas

APR 30 2015

NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THIS DRAWING ARE ESTIMATED DIMENSIONS AND ARE FOR REFERENCE ONLY.



Weatherford

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Customer: STONE ENERGY	Project No.: 97141	Quote No.: 207578
Project Name: UTICA	Date: 02/26/2014	Drawn By: SS



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

David B Loy
RR 2, Box 163
New Martinsville, WV 26155

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

Dear Sir:

Please be advised that Stone Energy Corporation has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by May 26, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
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May 13, 2015

Chesapeake Appalachia, LLC
6100 North Western Avenue
Oklahoma City, OK 73118

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Barry K. Lay, Chairman
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May 13, 2015

Benjamin R Yoho
Post Office Box 665
New Martinsville, WV 26155

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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
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May 13, 2015

Garnett Gas Corporation
Post Office Box 133
Creston, WV 26141

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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Marie A Morgan (heirs)
7822 Gingerbread Lane
Fairfax Station, VA 22039

RE: Intentional Deviation of New Deep Well – Starkweather 11HU

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May 13, 2015

Fred C Kunzelman
14 Matthew Drive
Fairmont, WV 26554

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May 13, 2015

Statoilhydro USA Onshore Properties, Inc.
2103 City West Boulevard, Suite 800
Houston, TX 77042

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May 13, 2015

Donna Schell
34 Williamsburg Circle
Wheeling, WV 26003

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May 13, 2015

Michael R Powell
367 Franklin Street
New Martinsville, WV 26155

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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
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May 13, 2015

Hayhurst Company
Post Office Box 5065
Fairmont, WV 26555

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Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
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May 13, 2015

Faye A Skinner
224 Riverview Drive
New Martinsville, WV 26155

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May 13, 2015

George William Grimm
753 Camp Creek Road
Spencer, TN 38585

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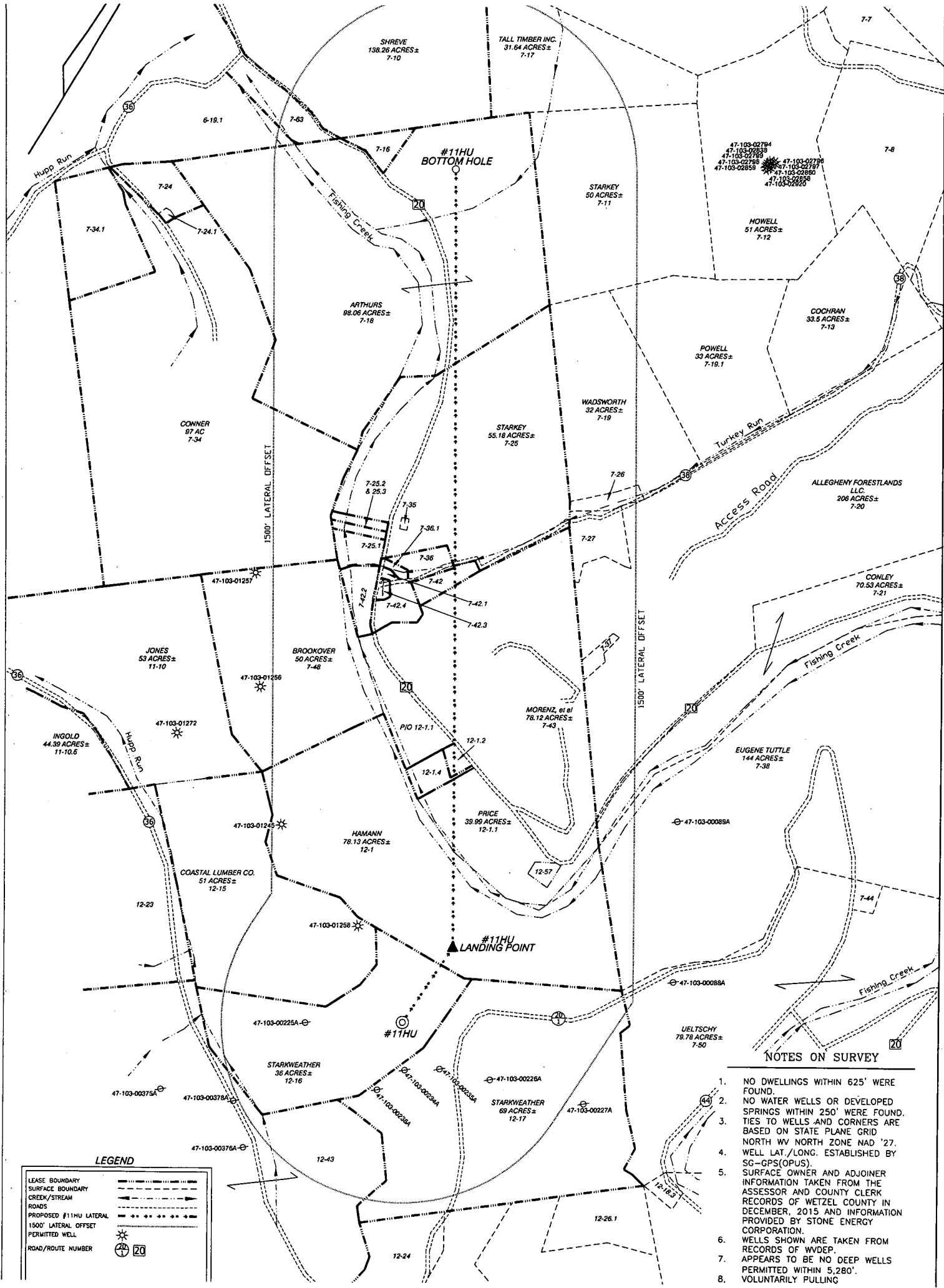
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Executive Assistant

encl: as stated



LEGEND

LEASE BOUNDARY	---
SURFACE BOUNDARY	---
CREEK/STREAM	---
ROADS	---
PROPOSED #11HU LATERAL	---
1500' LATERAL OFFSET	---
PERMITTED WELL	☆
ROAD/ROUTE NUMBER	20

NOTES ON SURVEY

1. NO DWELLINGS WITHIN 625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27. WELL LAT./LONG. ESTABLISHED BY SG-GPS(OPUS).
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN DECEMBER, 2015 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
5. WELLS SHOWN ARE TAKEN FROM RECORDS OF WDEP.
6. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
7. VOLUNTARILY PULLING

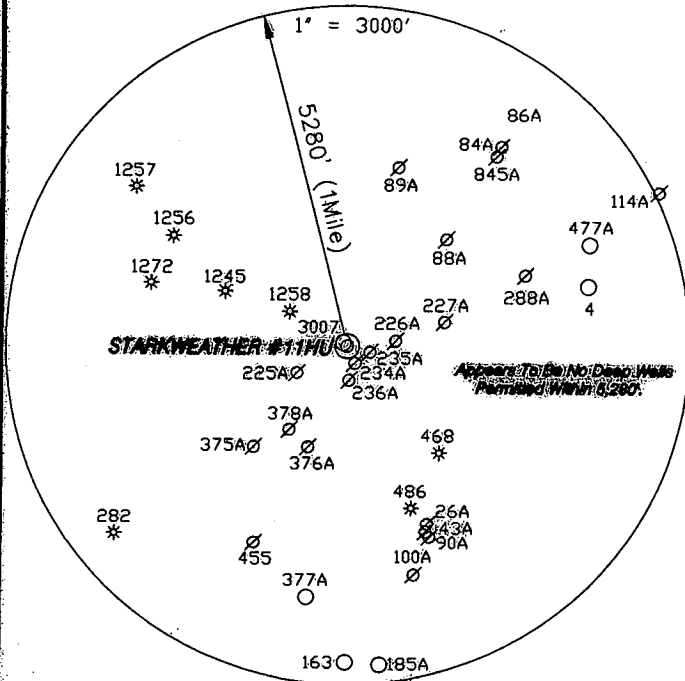
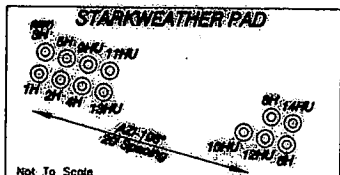
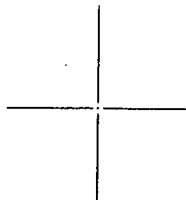
Offset Operators
Starkweather 11HU

District	Tax Map	Parcel	Lessee/Non-Leased	Address
5	7	16	David B. Loy	RR 2, Box 163 New Martinsville, WV 26155
5	7	10	Chesapeake Appalachia, LLC	6100 North Western Ave. Oklahoma City, OK 73118
5	6	19.1	Chesapeake Appalachia, LLC	6100 North Western Avenue Oklahoma City ,OK 73118
5	6	19.1	Benjamin R. Yoho	P.O. Box 665 New Martinsville, WV 26155 or 2104 Laurel Valley Way Raleigh, NC 27604
5	6	19.1	Garnett Gas Corporation	PO Box 133 Creston, WV 26141
5	6	19.1	Marie A. Morgan Heirs	7822 Gingerbread Lane Fairfax Station, VA 22039
5	6	19.1	Fred C. Kunzelman	14 Matthew Drive Fairmont, WV 26554
5	7	63	Chesapeake Appalachia, LLC	6100 North Western Avenue Oklahoma City ,OK 73118
5	7	63	George William Grimm	753 Camp Creek Road Spencer, TN 38585
5	7	63	Statoilhydro USA Onshore Properties, Inc.	2103 CityWest Boulevard Suite 800 Houston, TX 77042
5	7	63	Donna Schell	34 Williamsburg Circle Wheeling, WV 26003
5	7	63	Michael R. Powell	367 Franklin Street New Martinsville, WV 26155
5	7	63	Hayhurst Company	P.O. Box 5065 Fairmont, WV 26555
5	7	63	Fred Kunzelman	14 Matthew Drive Fairmont, WV 26554
5	7	63	Faye A. Skinner	224 Riverview Drive New Martinsville, WV 26155

5	7	17	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	11	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	19	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	19.1	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	26	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	27	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	20	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	37	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	57	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	21	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	38	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	15	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	48	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42.3	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42.2	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508

5	7	42.1	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	25.1	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	25.2	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	25.3	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	34	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	43	Stone Energy Corporation		625 East Kaliste Saloom Road Lafayette, LA 70508

(SEE PAGE '2 OF 2 FOR PLAT)



STATE PLANE
COORDINATES
NORTH ZONE-NAD 27
(N) 584132
(E) 759880
L & L DECIMAL
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UTM (NAD 83)
ZONE 17
METER
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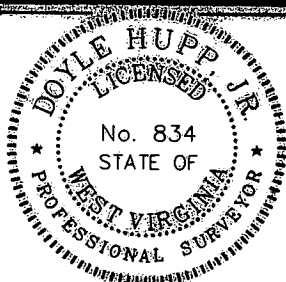
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COORDINATES
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(E) 1882157
L & L DECIMAL
NAD 27
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UTM (NAD 83)
ZONE 17
NORTERS
4882417
817032

TRACT ID	LESSOR	LEARNED ACRES	UNIT ACRES
A	STANLEY PITTMAN, JR. #1	65.0±	78.0±
B	STANLEY PITTMAN, JR. #1	67.0±	80.0±
C	BLUE RIDGE GAS PARTNERSHIP	78.74±	70.3±
D	BLUE RIDGE GAS PARTNERSHIP	53.0±	0.00±
E	BLUE RIDGE GAS PARTNERSHIP	59.0±	20.4±
F	DAVID A. COCHRAN, JR. #1	67.0±	7.1±
G	OVERBROOK APPLICABLE, L.L.C.	66.00±	66.0±
H	GATSON EXPLORATION, JR. #1	156.38±	0.0±
I	GATSON EXPLORATION, JR. #1	21.64±	4.3±
J	GATSON EXPLORATION, JR. #1	60.0±	32.3±
K	ROBERT J. KOWALL, JR. #1	36.0±	2.9±
L	DAVID A. COCHRAN, JR. #1	32.0±	25.1±
M	DAVID A. COCHRAN, JR. #1	66.18±	66.18±
N	DAVID A. COCHRAN, JR. #1	0.67±	0.67±
O	DAVID A. COCHRAN, JR. #1	0.69±	0.69±
P	ELAINE MOORE BATHIE, JR. #1	0.94±	0.94±
Q	JOHN E. S. GONZALES, JR. #1	6.78±	6.78±
R	JOHN E. S. GONZALES, JR. #1	2.0±	2.0±
S	STANLEY PITTMAN, JR. #1	0.9±	0.9±
T	RAYMOND L. LEASING	0.5±	0.5±
U	DAVID L. WILSON	0.29±	0.29±
V	DAVID L. WILSON	2.19±	2.19±
W	DAVID L. WILSON	3.0±	3.0±
X	DAVID L. WILSON	1.4±	1.4±
Y	DAVID L. WILSON	2.3±	2.3±
Z	DAVID L. WILSON	4.0±	4.0±
AA	ALAN W. MOORE	205.0±	95.4±
BB	BLUE RIDGE GAS PARTNERSHIP	78.69±	2.5±
CC	BLUE RIDGE GAS PARTNERSHIP	144.0±	8.2±
DD	BLUE RIDGE GAS PARTNERSHIP	0.49±	0.49±
EE	BLUE RIDGE GAS PARTNERSHIP	78.12±	78.12±
FF	BLUE RIDGE GAS PARTNERSHIP	1.76±	1.76±
GG	BLUE RIDGE GAS PARTNERSHIP	1.04±	1.04±
HH	BLUE RIDGE GAS PARTNERSHIP	96.50±	93.98±
II	BLUE RIDGE GAS PARTNERSHIP	1.0±	1.0±
JJ	STANLEY PITTMAN, JR. #1	69.0±	7.7±
		UNIT TOTAL	541.5±

1. NO DWELLINGS WITHIN 625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
3. TIES TO WELL AND CORNERS ARE BASED ON STATE PLANE GRID NORTH W/ NORTH ZONE NAD '27.
4. WELL LAT./LONG. ESTABLISHED BY SO-GPS (GPS).
5. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN DECEMBER, 2013 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF MWDEP.
7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
8. VOLUNTARY POOLING
9. THIS PLAT AND FOR THE DEPICTIONS ARE UNDER NO CIRCUMSTANCES TO BE CONSTRUED AS ANY TYPE OF BOUNDARY SURVEY. THIS PLAT IS FOR OIL & GAS PURPOSES ONLY AND IS CREATED FOR THE USE OF THE WELL OPERATOR(S) ONLY.

HURP Surveying & Mapping
P.O. Box 647 Grantsville, WV 26147
(304) 354-7035 EMAIL: hurp@trionet.net



API
WELL
NO. 47-103-

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. W2173 (BK 59-35)
PROVEN SOURCE OF ELEVATION SG-GPS (OPUS) SCALE 1" = 1000'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



WELL _____ LIQUID _____ WASTE _____ IF _____
TYPE : OIL _____ GAS X INJECTION _____ DISPOSAL _____ "GAS" PRODUCTION X STORAGE _____ DEEP X SHALLOW _____
LOCATION :
ELEVATION 1,280' WATERSHED FISHING CREEK
DISTRICT GREEN COUNTY WETZEL QUADRANGLE PORTERS FALLS 7.5'
SURFACE OWNER HEATH & CHARMAINE STARKWEATHER ACREAGE 36±
ROYALTY OWNER HEATH & CHARMAINE STARKWEATHER, et al LEASE ACREAGE 541.24±
PROPOSED WORK : _____ LEASE NO. _____
DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X PLUG OFF OLD
FORMATION _____ PERFORATE NEW FORMATION _____ PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____ OTHER _____
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION UTICA
_____ ESTIMATED DEPTH TVD 11,680' MD 18,700'

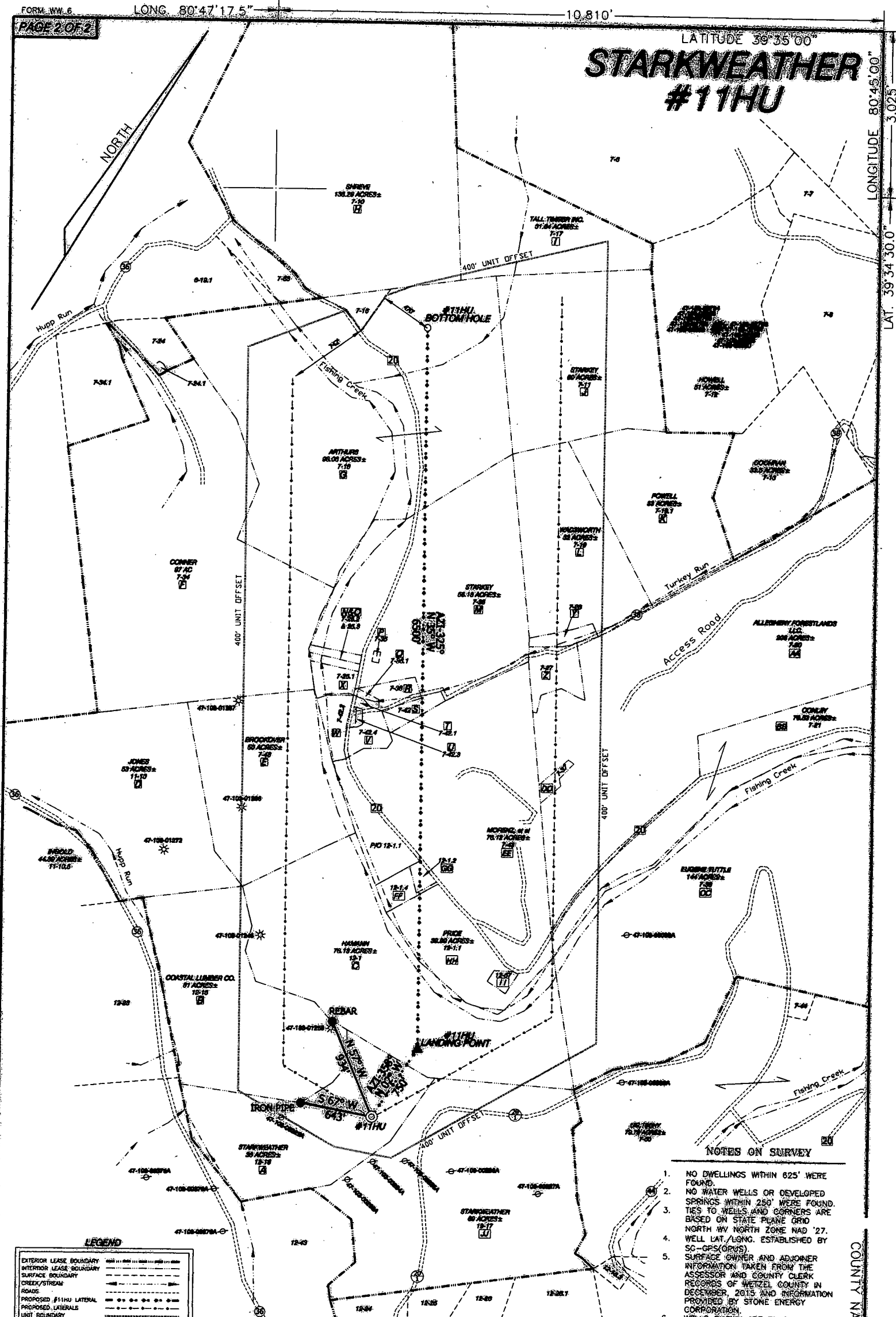
WELL OPERATOR STONE ENERGY CORPORATION DESIGNATED AGENT TIM MCGREGOR
ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508 ADDRESS 1300 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

LAT. 39° 34' 30.0" ——— 3.025 ——— LONGITUDE 80° 45' 00"

COUNTRY NAME

PERMIT

STARKWEATHER #11HU

 LONGITUDE 80°45'00"
 LAT. 39°34'30.0"


API WELL NO. 47-103-643

STATE COUNTY PERMIT

DATE APRIL 21, 2015

OPERATORS WELL NO. STARKWEATHER #11HU

HUPP Surveying & Mapping
 P.O. Box 647, Greenville, WV 26147
 (304) 354-7035 EMAIL: hupp@portusnet.net

WELL OPERATOR STONE ENERGY CORPORATION

DESIGNATED AGENT TIM MCGREGOR

ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508

ADDRESS 1300 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

CERTIFICATE OF CONSENT AND EASEMENT

We, the undersigned, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, being all the owners of the surface of that certain lot, tract or parcel of land located in Green District, Wetzel County, State of West Virginia, shown on the attached plat or survey, or hereby consent and grant an easement, pursuant to West Virginia Code, Section 22C-9-7(b)(4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to Stone Energy Corporation, its successors or assigns, for the drilling and operation of a deep well for the production of oil or gas at the location shown on the attached plat or survey.

Executed this 12th day of December, 2014. Heath P. Starkweather
Charmaine A. Starkweather
Heath and Charmaine Starkweather

STATE OF MARYLAND

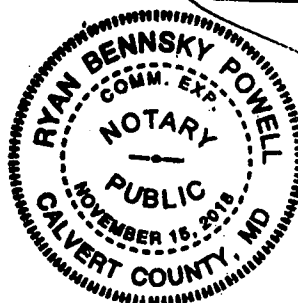
COUNTY OF Calvert To-Wit

I, Ryan Bennsky Powell, a Notary Public in and for the aforesaid County and State, do hereby certify that Heath and Charmaine Starkweather, whose name is signed to the writing above, bearing date on the 12 day of December, 2014, has this day acknowledged the same before me, in my said County and State. Given under my hand this 12 day of December, 2014.



My Commission expires on:

This instrument prepared by:
WV Oil and Gas Conservation Commission
601 57th Street
Charleston, WV 25304





1300 Fort Pierpont
Suite 201
Morgantown, West Virginia 26508
Telephone: (304) 225-1600

April 28, 2015

RE: Modifications to Starkweather 9HU, Starkweather 11HU, Starkweather 13HU, Well Work Permit Applications

Enclosed please find modifications for the Starkweather 9HU, Starkweather 11HU, and Starkweather 13HU well work permit applications previously submitted.

Please contact me or Danielle Snoderly (304.225.1775) if you have any questions.

A handwritten signature in black ink, appearing to read "Roger L. Cutright", written over the printed name.

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
cutrightrl@stoneenergy.com
304-225-1789 (Direct)

Received
Office of Oil & Gas
APR 30 2015

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Stone Energy Corporation 494490923 Wetzel Green Porters Falls
Operator ID County District Quadrangle

2) Operator's Well Number: #13HU Well Pad Name: Starkweather

3) Farm Name/Surface Owner: Starkweather, Heath & Charmine Public Road Access: Wetzel County Route 20/1

4) Elevation, current ground: 1,280' Elevation, proposed post-construction: 1,258'

5) Well Type (a) Gas X Oil Underground Storage
Other Horizontal well with pilot hole

(b) If Gas Shallow Deep X
Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
The well will target the Utica/Point Pleasant formations @ 11,467' TVD (-10,209' SS), 350' thick w/ RP = 9,200 - 9,700 psig.

DMH
4-28-15

8) Proposed Total Vertical Depth: 11,742'

9) Formation at Total Vertical Depth: Utica/Point Pleasant

10) Proposed Total Measured Depth: 19,400'

11) Proposed Horizontal Leg Length: 6,920 from the LP & 8,378 from the KOP

12) Approximate Fresh Water Strata Depths: 404', 489', 669' & 1,074'

13) Method to Determine Fresh Water Depths: When having to soap wellbore or show of fluid at end of flow line

14) Approximate Saltwater Depths: 2,289' & 2,354'

15) Approximate Coal Seam Depths: 589', 934' & 1,069'

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

(a) If Yes, provide Mine Info: Name:
Depth:
Seam:
Owner:

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4-30-15

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	24.0	New	LS	94.0	80'	80'	77 - CTS
Fresh Water/Coal	18.625	New	H40	97.5	1,275' KB / 1,254' GL	1,275' KB / 1,254' GL	2,180 - CTS
Intermediate 1	13.375	New	J55	54.5	2,540'	2,540'	Lead-1,641 Tail-550 CTS
Intermediate 2	9.625	New	P110	53.5	8,815'	8,815'	Lead-2,354 Tail-439 TOC @ 1,480'
Production	5.5	New	P110	26.0		19,400	3,257 - TOC @ 6,315'
Tubing							
Liners							

Note: The Fresh Water/Coal casing setting depth is just above Sea Level. At no time will the casing be set below Sea Level. This setting depth is due to sloughing formation below the deepest coal seam.

JMH 4-28-15

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	24.0	26.0	0.375	1,180	944	Type 1	1.18
Fresh Water/Coal	18.625	22.0	0.435	1,630	1,304	HalCem	1.198
Intermediate 1	13.375	17.5	0.380	2,730	2,184	HalCem	Lead-1.198 Tail-1.223
Intermediate 2	9.625	12.25	0.545	10,900	8,720	HalCem	Lead-2.98 Tail-1.29
Production	5.5	8.75	0.361	14,520	11,616	VariCem	1.22
Tubing							
Liners							

PACKERS

Kind:	TAM CAP Inflatable			
Sizes:	13.375"			
Depths Set:	1,000'			

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APR 30 2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drilling will consist of the use of three rigs. First a conductor rig will be MIRU to set and cement 24.0" conductor back to surface. RDMO conductor rig. The second rig (Top Hole) will be MIRU and it will drill and cement back to surface both the 18.625" and 13.375" casing strings. It will then drill the 12.25" hole to just above the Salina Salt formation. The well will be loaded from TD to surface with 3-6% KCl fluid and a gyro run inside of the drill string to TD to obtain well bore placement. RDMO Top Hole Rig. MIRU Horizontal Rig to finish drilling the 12.25" hole section and setting the 9.625" casing and cementing to ~1,000' inside the 13.375" casing. The well will then be directionally drilled to TD, 5.5" production casing run and cemented back to 2,500 inside the 9.625" casing string. After the installation of the night cap the Rig will then skid to the next pad well or move to a new location/pad.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Stimulation will begin by MIRU of coil tubing unit or service rig. The 5.5" casing is then cleaned out to the PBTD and a CBL is then run to approximately 30-60 degrees in the curve and pulled to surface. The next step is to perforate the toe stage. A stimulation company is then MIRU and the toe stage is fractured. Anticipated pressures is 9,000 psi with between 85 & 90 bmp pump rate. Each subsequent stage is then perforated after a pump down frac plug is set and the stage is perforated. After all stages are completed the well is SI and the stimulation company is RDMO. A coil tubing unit or service rig with snubbing unit is then MIRU and the frac plugs are drilled out and the 5.5" casing cleared to the PBTD. The rig is then RDMO and a flow back crew is RU to flow back the free water to frac tanks. Once well begins to gas it is either flared or placed in line through a separator and produced. The well is next turned over to production and the flow back crew is RDMO.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 10.6

22) Area to be disturbed for well pad only, less access road (acres): 7.4

23) Describe centralizer placement for each casing string:

DMH 4-28-15

The fresh water/coal string will incorporate the use use of bow spring centralizers beginning generally on joint 2 to surface on every third joint. The intermediate strings 1 & 2 will incorporate bow spring centralizers with one on joint 2 and then every fourth joint to surface. The production string will use alternating left and right rigid spiral centralizers beginning on joint 2 and then every fourth joint to the pup joint 100' above the KOP. From there bow spring centralizers will be used on every third joint from the KOP to TOC.

24) Describe all cement additives associated with each cement type:

Fresh water/coal string and intermediate strings 1 & 2 will be cemented using HalCem which is a Class "A" cement with 0.25 pps Pol-E-Flake with up to 2% CaCl. The production string will be cemented with VariCem which is a Class "A" that can be mixed at different weights.

25) Proposed borehole conditioning procedures:

- The 20.0" and 17.5" hole sections will be conditioned using air and/or soap until cuttings are removed from the well bore.
- The 12.25" section will be conditioned using air and/or stiff foam until cuttings have been removed from the well bore.
- The 8.75" section will be conditioned with a minimum of three bottoms up of drilling fluid (Revised) and the shakers screens are clear of cuttings.

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APR 30 2015

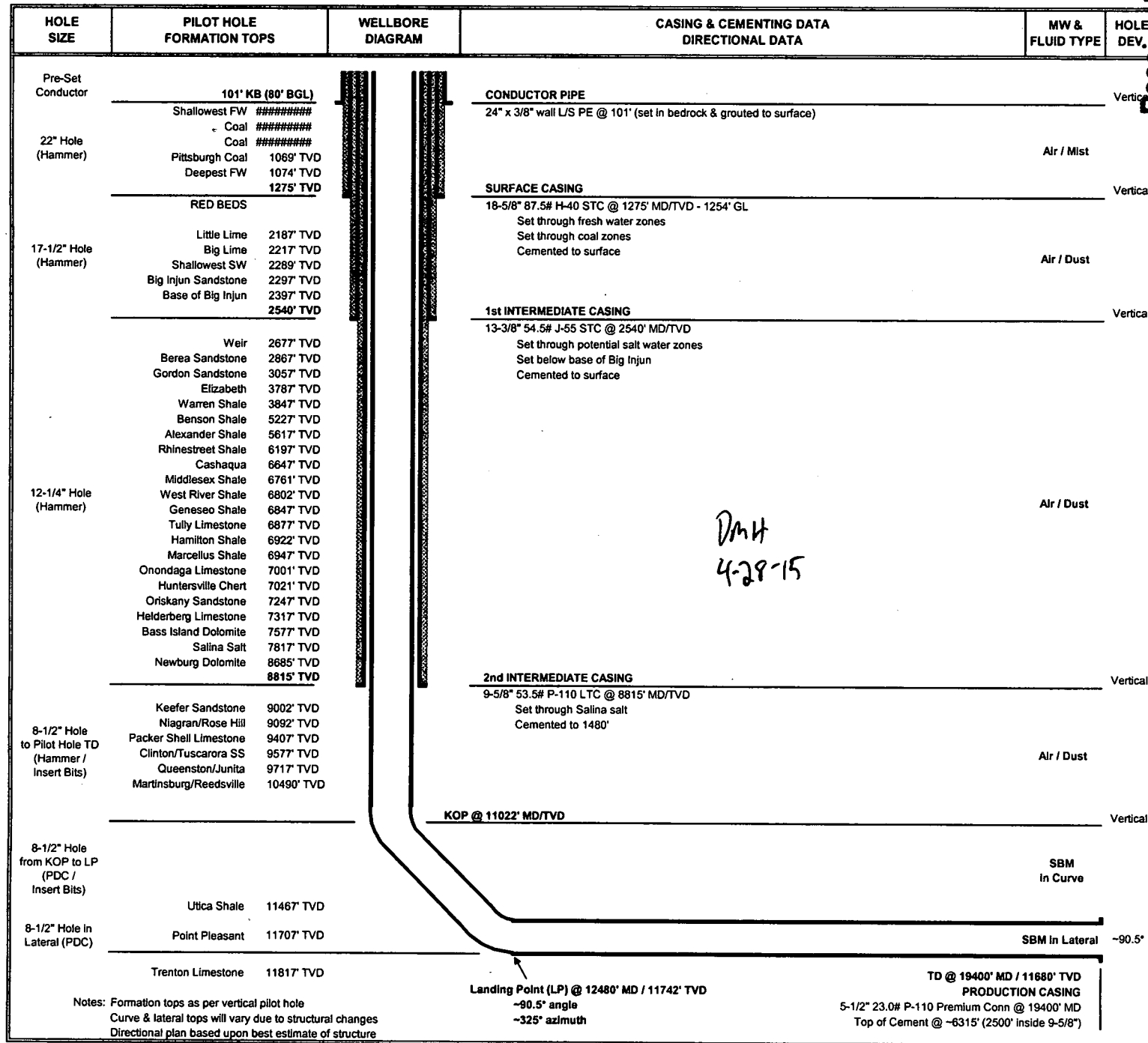
*Note: Attach additional sheets as needed.

Well: Starkweather #13HU
 State: West Virginia
 County: Wetzel
 District: Green
 Prospect: Mary
 Location: Surface: Lat = 39.5749995° N & Long = 80.788046° W / (N) 4,380,609' (E) 518,204' (UTM - NAD83, Zone 17)
 Permitted BHL: Lat = 39.594170° N & Long = 80.798819° W / (N) 4,382,735' (E) 517,274' (UTM - NAD83, Zone 17)
 Proposed TD: 19400' MD / 11680' TVD

PROPOSED HORIZONTAL

Revision: 28-Jan-15

Permit Number: 47-103-03065
 Permit Issued:
 Post Construction Ground Elevation: 1258'
 Kelly Bushing: 21'
 Rig:
 Spud Date:
 TD Date:
 Rig Release Date:

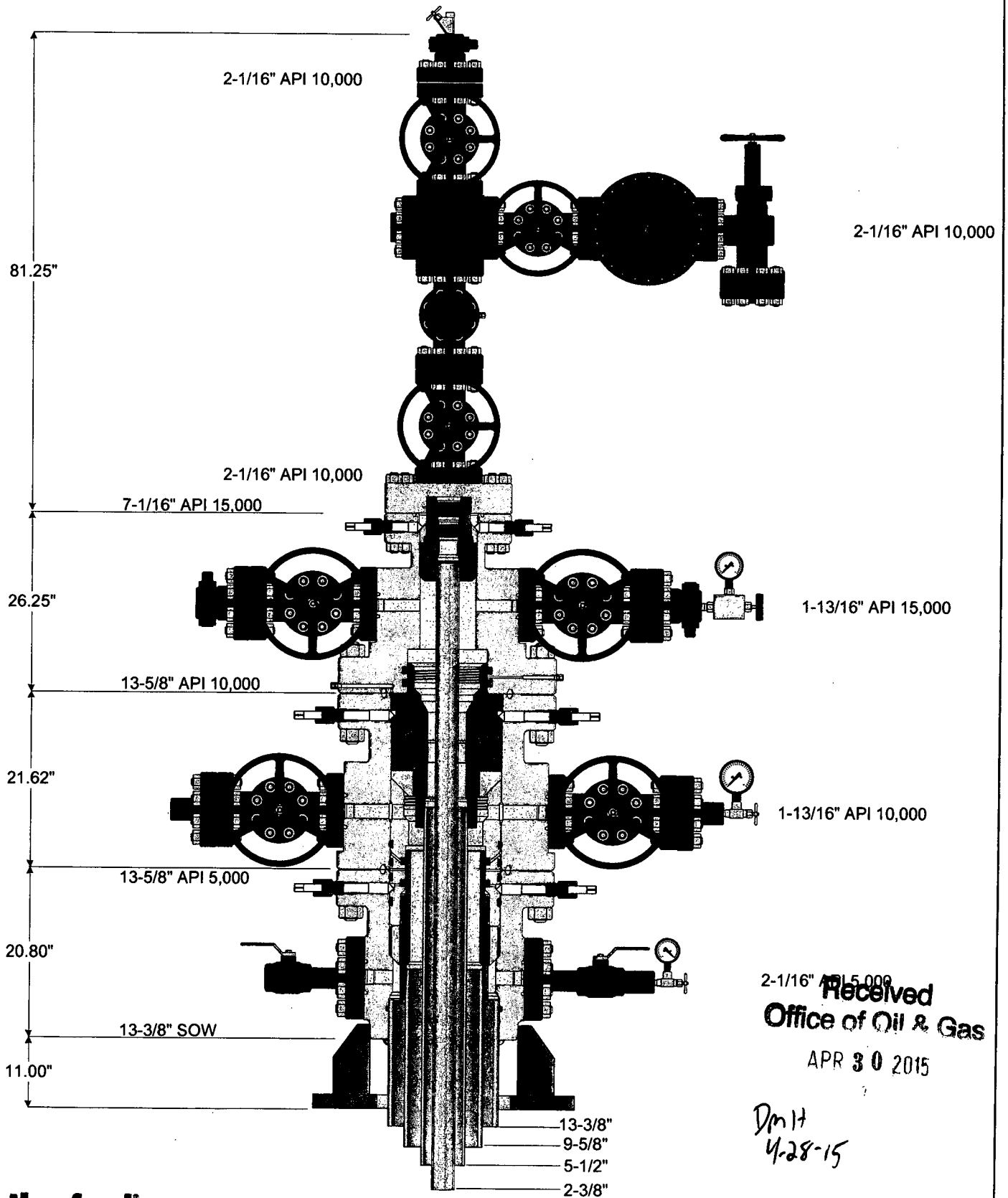


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NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THIS DRAWING ARE ESTIMATED DIMENSIONS AND ARE FOR REFERENCE ONLY.



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APR 30 2015

Dm17
4-28-15



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Customer: STONE ENERGY	Project No.: 97141	Quote No.: 207578
Project Name: UTICA	Date: 02/26/2014	Drawn By: SS

STARKWEATHER #13HU

(SEE PAGE 2 OF 2 FOR PLAT)

STARKWEATHER #13HU
SURFACE HOLE

STATE PLANE
COORDINATES
NORTH ZONE-NAD 27
(N) 904112
(E) 196094
L & L DECIMAL
NAD 27
30.67492
80.78822
UTM (NAD 83)
ZONE 17
METERS
4980009
518204

STARKWEATHER #13HU
LANDING POINT

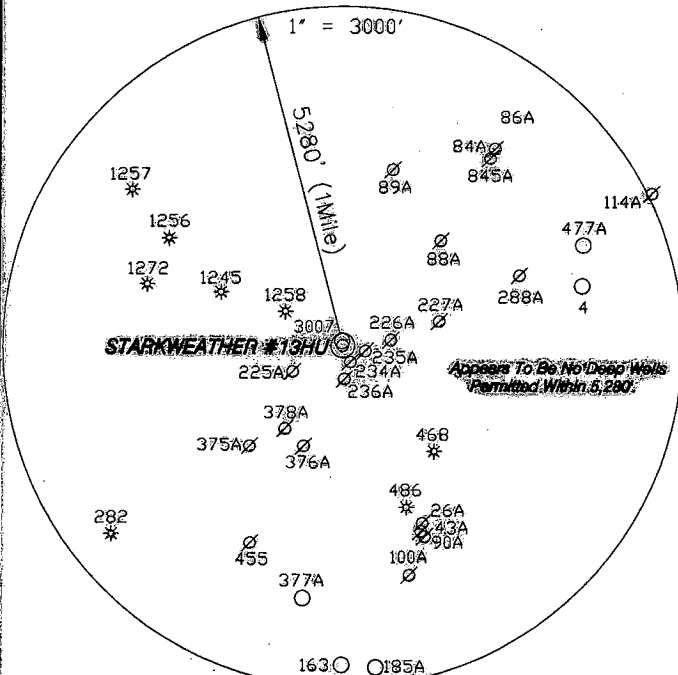
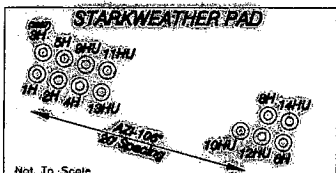
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UTM (NAD 83)
ZONE 17
METERS
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STARKWEATHER #13HU
BOTTOM HOLE

STATE PLANE
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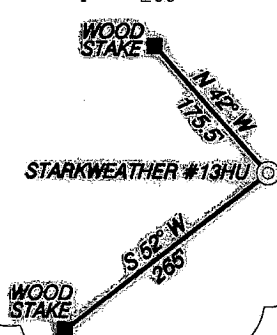
STARKWEATHER #9HU

TRACT ID	LESSOR	LEASED ACRES	UNIT ACRES
A	CHARMAINE A. STARKWEATHER, et al	30.0±	10.0±
B	BLUE RIDGE GAS PARTNERS	61.0±	20.3±
C	BLUE RIDGE GAS PARTNERS	78.19±	70.9±
D	BLUE RIDGE GAS PARTNERS, LLC	82.0±	0.005±
E	BLUE RIDGE GAS PARTNERS	50.0±	29.4±
F	DAVID A. CONNOR, et al	97.0±	7.1±
G	CHESAPEAKE APPALACHIA, LLC	98.00±	88.9±
H	GASTAR EXPLORATION, et al	188.28±	0.3±
I	GASTAR EXPLORATION, et al	31.04±	4.5±
J	GASTAR EXPLORATION, et al	50.0±	32.2±
K	ROBERT J. POWELL, et al	33.0±	2.0±
L	CENTRAL WISCONSIN EXPLORATION, et al	32.0±	20.1±
M	ERNESTINE BELLA BONNER, et al	55.18±	55.18±
N	ERNESTINE BELLA BONNER, et al	0.67±	0.67±
O	ERNESTINE BELLA BONNER, et al	0.68±	0.62±
P	BELLA-JANE MOORE SMITH, et al	0.94±	0.94±
Q	ROYAL & CARLA J. HARRISON, et al	3.784±	3.784±
R	ROYAL & CARLA J. HARRISON, et al	2.0±	2.0±
S	STANLEY FITZWILL, et al	0.3±	0.3±
T	PAITRELL LEASURE	0.5±	0.5±
U	THOMAS LYNN RAYSON	0.28±	0.25±
V	ALBERT L. & NERT L. NORMAN	2.19±	2.19±
W	LAURENCE H. HAYES, et al	3.0±	3.0±
X	ERNESTINE BELLA BONNER, et al	1.4±	1.4±
Y	DILLFORD GLENN WEAVER, et al	2.9±	2.9±
Z	MARK L. COCHRAN	4.0±	4.0±
AA	ALLEGHENY WOOD PRODUCTS, et al	200.0±	23.4±
BB	CENTRAL WISCONSIN EXPLORATION, et al	70.53±	2.5±
CC	CENTRAL WISCONSIN EXPLORATION, et al	144.0±	8.9±
DD	ALLEGHENY WOOD PRODUCTS, et al	0.49±	0.49±
EE	BLUE RIDGE GAS PARTNERS	78.12±	78.12±
FF	BLUE RIDGE GAS PARTNERS	1.79±	1.79±
GG	BLUE RIDGE GAS PARTNERS	1.04±	1.04±
HH	BLUE RIDGE GAS PARTNERS	30.90±	30.90±
II	BLUE RIDGE GAS PARTNERS	1.0±	1.0±
JJ	CHARMAINE A. STARKWEATHER, et al	60.0±	7.7±
		UNIT TOTAL	541.24±



REFERENCES

1" = 200'



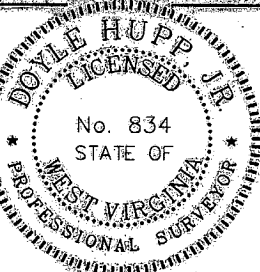
NOTES ON SURVEY

1. NO DWELLINGS WITHIN 1625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 2260' WERE FOUND.
3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WY NORTH ZONE NAD '27.
4. WELL LAT./LONG. ESTABLISHED BY SG-GPS (OPUS).
5. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN DECEMBER, 2015 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WYDEP.
7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
8. VOLUNTARY FLOODING
9. THIS PLAT AND/OR THE DEPICTIONS ARE UNDER NO CIRCUMSTANCES TO BE CONSTRUED AS ANY TYPE OF BOUNDARY SURVEY. THIS PLAT IS FOR OIL & GAS PURPOSES ONLY AND IS CREATED FOR THE USE OF THE WELL OPERATOR(S) ONLY.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S.
834

Doyle Hupp, Jr.
DOYLE HUPP, JR.
HUPP Surveying & Mapping
P.O. Box 847 Grantsville, WV 26147
(304) 354-7035 EMAIL: hupp@frontiernet.net



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE APRIL 21, 2015

OPERATOR'S WELL NO. STARKWEATHER #13HU

API
WELL NO. 47-103-
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. W2173 (BK 59-35)
PROVEN SOURCE OF ELEVATION SG-GPS (OPUS) SCALE 1" = 1000'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



WELL TYPE : OIL ___ GAS ☒ LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION ☒ STORAGE ___ DEEP ☒ SHALLOW ___
LOCATION : ELEVATION 1,280' WATERSHED FISHING CREEK
DISTRICT GREEN COUNTY WETZEL QUADRANGLE PORTERS FALLS 7.5'
SURFACE OWNER HEATH & CHARMAINE STARKWEATHER ACREAGE 36±
ROYALTY OWNER HEATH & CHARMAINE STARKWEATHER, et al LEASE ACREAGE 544.24±
PROPOSED WORK : LEASE NO. _____
DRILL ☒ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION UTICA
ESTIMATED DEPTH TVD 11,680' MD 19,400'

WELL OPERATOR STONE ENERGY CORPORATION DESIGNATED AGENT TIM MCGREGOR
ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508 ADDRESS 1800 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

COUNTY NAME

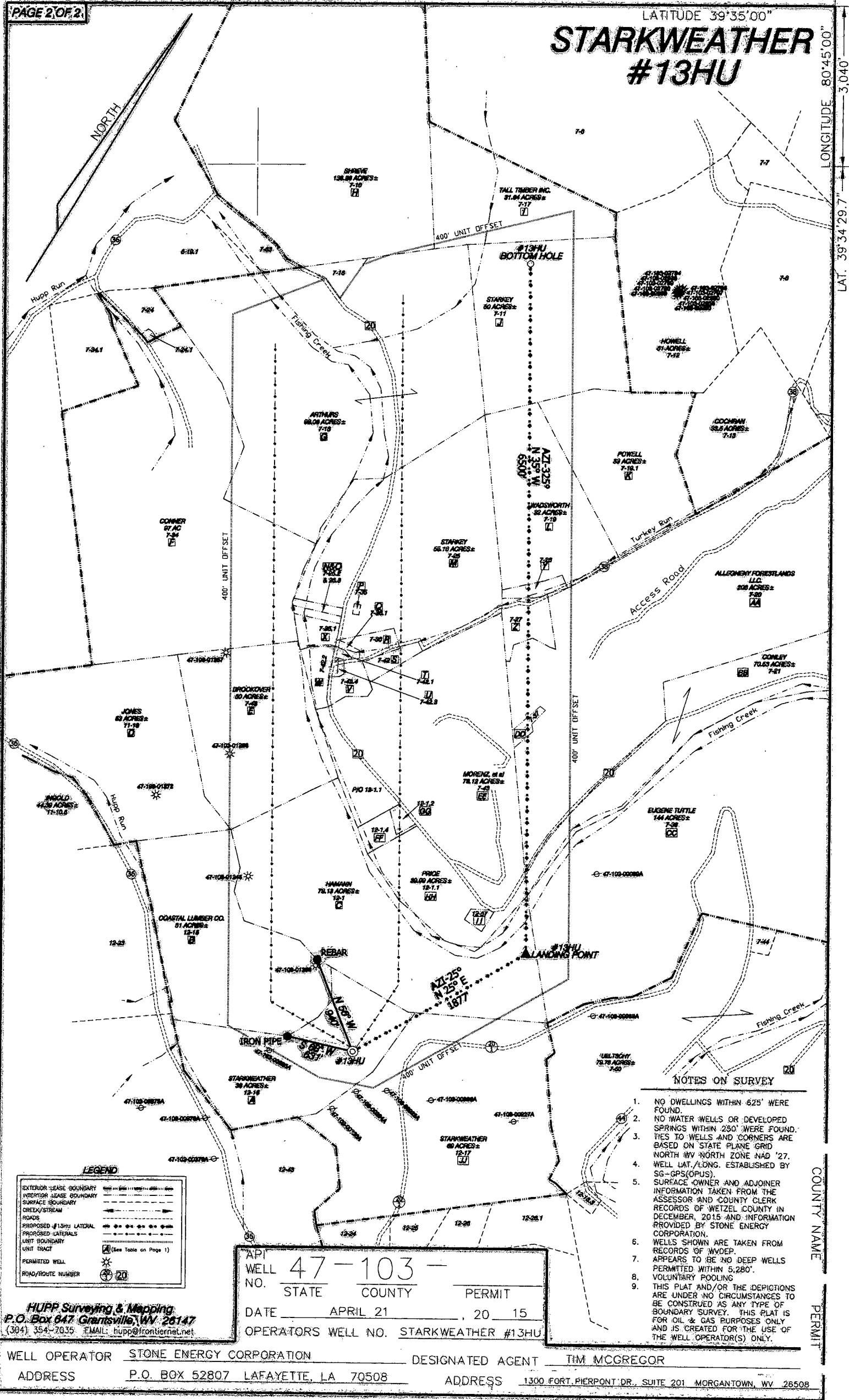
PERMIT

**STARKWEATHER
#13HU**

LONGITUDE 80°45'00"

LAT. 39°34'29.7"

COUNTY NAME PERMIT





west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

Chesapeake Appalachia, LLC
6100 North Western Avenue
Oklahoma City, OK 73118

RE: Intentional Deviation of New Deep Well – Starkweather 13HU

Dear Sir:

Please be advised that Stone Energy Corporation has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by May 26, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

May 13, 2015

WesBanco
1 Bank Plaza
Wheeling, WV 26003

RE: Intentional Deviation of New Deep Well – Starkweather 13HU

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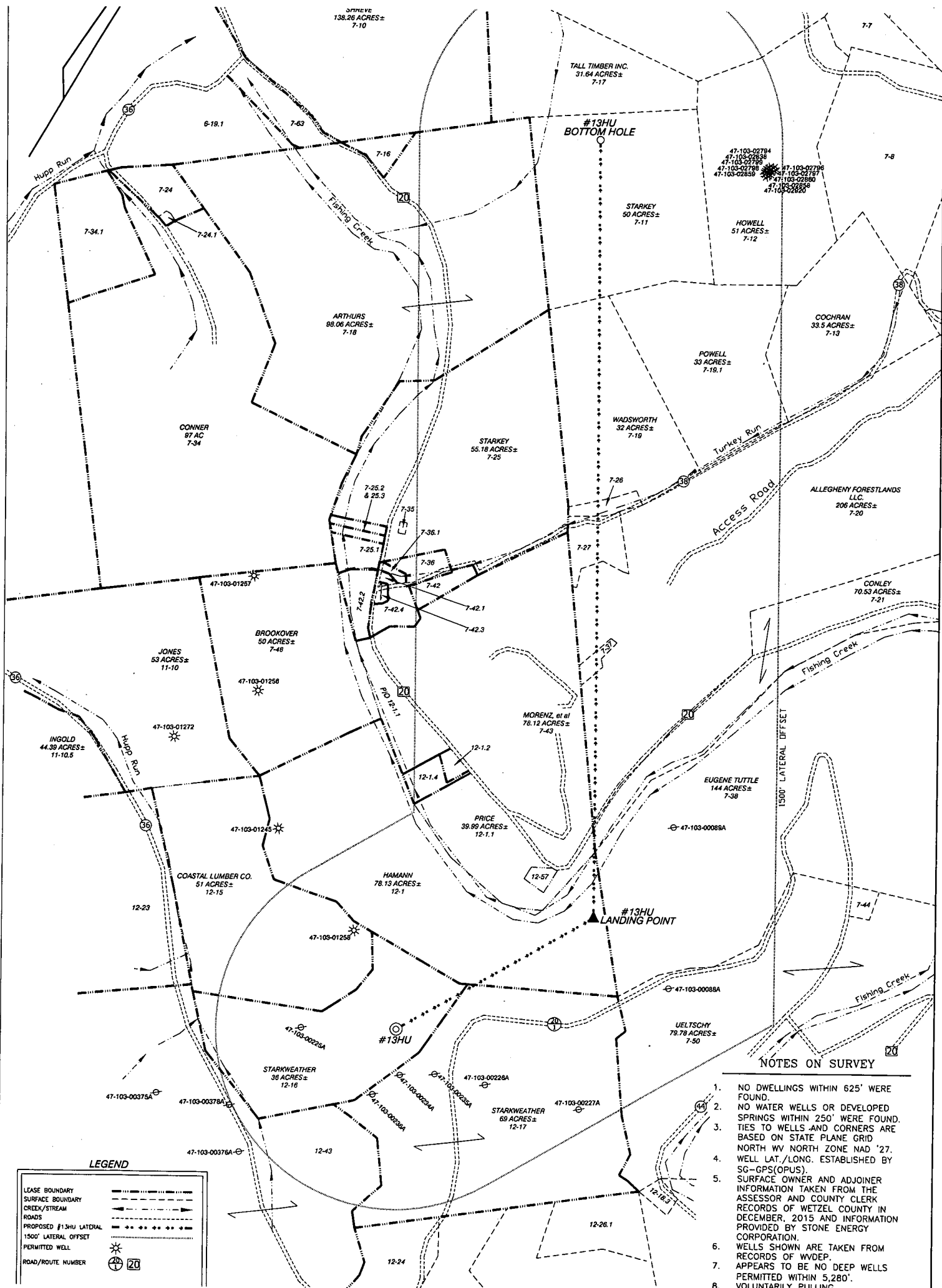
A copy of the location plat is enclosed for your review. If no objection(s) are received by May 26, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated



LEGEND

- LEASE BOUNDARY
- SURFACE BOUNDARY
- CREEK/STREAM
- ROADS
- PROPOSED #13HU LATERAL
- 1500' LATERAL OFFSET
- PERMITTED WELL
- ROAD/ROUTE NUMBER

NOTES ON SURVEY

1. NO DWELLINGS WITHIN 625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WY NORTH ZONE NAD '27.
4. WELL LAT./LONG. ESTABLISHED BY SG-GPS(OPUS).
5. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN DECEMBER, 2015 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WDEP.
7. APPEARS TO BE NO DEEP WELLS PERMITTED WITHIN 5,280'.
8. VOLUNTARILY PULLING

Offset Operators
Starkweather 13HU

District	Tax Map	Parcel	Lessee/Non-Leased	Address
5	7	10	Chesapeake Appalachia, LLC	6100 North Western Ave. Oklahoma City, OK 73118
5	7	16	David B. Loy	RR 2, Box 163 New Martinsville, WV 26155
5	7	6	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	12	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	13	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	21	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	50	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	15	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	1.2	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	1.4	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	36	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	42.4	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	7	18	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508
5	12	43	Stone Energy Corporation	625 East Kaliste Saloom Road Lafayette, LA 70508

Roger L. Cutright
Land Manager and Special Counsel
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown WV 26508



July 22, 2015

Oil and Gas Conservation Commission
Department of Environmental Protection
Attention: Cindy Raines
601 57th Street
Charleston, WV 25304

Re: Amended Supplemental Application for W. Va. CSR § 39-1-4.2 Spacing Exception for the Starkweather #9HU, #11HU, and #13HU

Dear Ms. Raines:

Pursuant to W. Va. CSR § 39-1-4.3, please find enclosed an original and two copies of Stone Energy Corporation's ("Stone") supplemental application for exception to the 3000' spacing requirement set forth in W. Va. CSR § 39-1-4.2

Should you have any questions, please feel free to contact me.

Respectfully,

A handwritten signature in black ink that reads "Roger L. Cutright". The signature is written in a cursive style with a large, stylized "R" and "C".

Roger L. Cutright

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE SUPPLEMENTAL APPLICATION BY STONE ENERGY CORPORATION, A DELAWARE CORPORATION, FOR AN EXCEPTION TO THE 3000' SPACING REQUIREMENT SET FORTH IN W. VA. CSR § 39-1-4.2

DOCKET NO. 232
CASE NO. 222

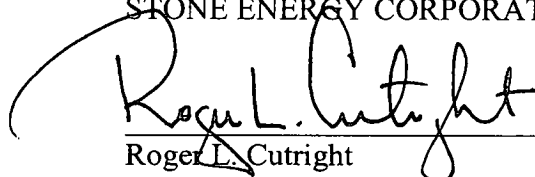
AMENDED SUPPLEMENTAL APPLICATION FOR SPACING EXCEPTION

NOW COMES STONE ENERGY CORPORATION, a Delaware corporation, ("Applicant") and gives notice of its intention to direct the bottom of the Starkweather #9HU, #11HU, and #13HU wells away from vertical and, pursuant to W. Va. CSR § 39-1-4.3, requests an exception to the 3,000' spacing requirement set forth in W. Va. CSR § 39-1-4.2. In support of its Supplemental Application, Applicant states as follows:

1. Applicant is a Delaware corporation engaged in the production of oil and gas within the State of West Virginia and is an operator within the meaning of W. Va. Code § 22C-9-2(a)(4). The Applicant is a qualified and experienced operator of oil and gas wells, including horizontal wells, in West Virginia. The Applicant's address is: Stone Energy Corporation, 1300 Fort Pierpont Drive, Suite 201, Morgantown, WV 26508.
2. Applicant has submitted with this Supplemental Application for Spacing Exception well work permit applications for the Starkweather #9HU, #11HU, and #13HU deep wells (each with a Utica target formation).
3. Applicant will form an approximate 541.24-acre voluntary unit around the Starkweather #9HU, #11HU, and #13HU deep wells (the "Starkweather Unit A").
4. The Starkweather #9HU, #11HU, and #13HU deep wells are planned for a 600' lateral offset. Applicant believes such spacing will allow for the most efficient development of the oil and gas within the Starkweather Unit A and minimize the potential for waste.

WHEREFORE, Applicant respectfully requests that this Commission conduct such hearings as are required by law regarding the exception requested and enter an order approving such exception.

STONE ENERGY CORPORATION



Roger L. Cutright
Appalachia Land Manager and Special
Counsel
1300 Fort Pierpont Drive, Suite 201
Morgantown, WV 26508
304-225-1789

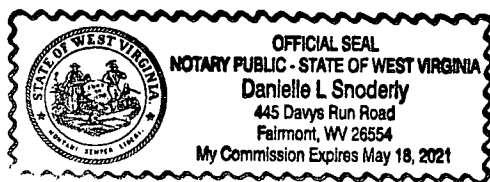
VERIFICATION

STATE OF WEST VIRGINIA
COUNTY OF MONONGALIA, to wit:

This day personally appeared before me, the undersigned, Roger L. Cutright, who being by me first duly sworn, deposes and says that he is the Land Manager and Special Counsel of Stone Energy, Inc., Applicant in the foregoing Amended Supplemental Application and knows the contents thereof pertaining to its claims and allegations; that the facts set forth therein are true, except as to such matters as are therein stated to be upon information and belief, and that insofar as matters are therein stated to be upon information and belief, he believes them to be true.

Roger L. Cutright

The foregoing instrument was acknowledged before me on this 22nd day of July, 2015 by Roger L. Cutright, Land Manager and Special Counsel.



Danielle L. Snoderly
Notary Public
My commission expires: 5/18/2021



SWN Production Company, LLC
P O Box 12359
Spring, Texas 77391-2359
www.swn.com

July 22, 2015

Mr. Roger Cutright
Stone Energy Corporation
1300 Fort Pierpont Drive, Suite 201
Morgantown, WV 26508

**VIA FEDEX &
ELECTRONIC MAIL: CutrightRL@StoneEnergy.com**

Re: Starkweather 9HU, 11HU, and 13HU Wells
Green District, Wetzel County

Dear Mr. Cutright:

SWN Production Company, LLC ("SWN") has received notice from the WV Oil and Gas Conservation Commission ("Commission") that Stone Energy Corporation ("Stone") has requested the Commission review and approve an exception to the spacing requirements as set forth in CSR 39-1-4.2 and establish a voluntary 541.24 acre drilling unit ("Starkweather Utica A Unit" or the "Unit") to allow for the drilling of the above referenced wells. A hearing before the Commission on these requests is currently set for July 23, 2015 (Docket No. 232, Cause No. 222).

In this regard, SWN hereby agrees not to protest, nor cause to be protested, or delayed any of Stone's requests to the Commission pertaining to Docket No. 232, Cause No. 222, subject to Stone agreeing to the following:

- 1) Stone shall not conduct operations on SWN's oil and gas leasehold (the "Leases") that are inside the Unit, until such time as one of the following has occurred:
 - a) Stone and SWN have consummated a lease trade agreement, including all of SWN's Leases in the Starkweather Utica A Unit or any other unit encompassing the Leases that are the subject of the above referenced hearing; or
 - b) Stone and SWN agree to jointly participate in the wells and enter into a mutually agreeable Joint Operating Agreement covering the Leases on a form substantially similar to AAPL Form 610 - 1989; or
 - c) Stone and SWN enter into an agreement, whereby Stone will carry all costs which would be attributed to SWN's proportionate interest in the unit and wells and receive all revenues until such time as 100% of the costs attributable to SWN's interest are recouped by Stone, at which point SWN would become entitled to its proportionate share of revenues and costs in the unit and wells.

$\frac{R^+}{A} \rightarrow V^+$

- 2) Stone shall make it known to the Commission, and placed on the public record at the scheduled hearing, that its requests for exception shall be contingent upon consummating a trade agreement with SWN for the Leases.

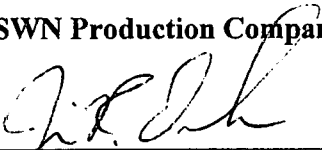
Notwithstanding any order or finding of the Commission to the contrary, the terms and conditions of this agreement shall be binding as between the parties.

The terms and conditions of this agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, heirs, trustees and assigns.

Should the foregoing be acceptable, please so indicate in the space provided and return via email or facsimile to the attention of Bill Reedy at (832) 796-8883.

Sincerely,

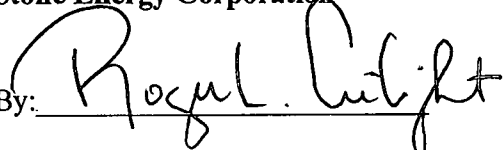
SWN Production Company, LLC



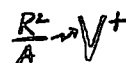
Jim R. Dewbre ^{BTR}
Sr. Vice President – Land & Regulatory

Accepted and agreed to this 28th day of July, 2015.

Stone Energy Corporation

By: 

Its: Land Manager / Special Counsel



The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+°

Ex. 8

DIANE MARCOTTE CORWIN (BS PE, MBA)

EDUCATION

TULANE UNIVERSITY- New Orleans, LA

Master in Business Administration '97

LOUISIANA STATE UNIVERSITY – Baton Rouge, LA

Bachelor of Petroleum Engineering '80

WORK HISTORY CAREER PROGRESSION

STONE ENERGY - Morgantown, WV

Operations Manager 10/2013- present. Manages the upstream operations of the gas/condensate production (surface well & subsurface reservoir performance), well pad site construction, gas/condensate/water pipeline installation, and surface processing facilities design/commissioning/maintenance for the Stone's development of the Marcellus & Utica unconventional shale in the Appalachia Basin. In addition, responsible for interfacing with midstream company as well as addressing regulatory, safety & environments issues. Focuses on delivering production at target levels to generate revenue, driving project efficiencies, while controlling operating cost to achieve net income to meet financial performance goals.

NORTHEAST NATURAL ENERGY - Morgantown, WV

General Manager Operations 10/2011- 10/2013. Manages the gas well production and development operations (surface & subsurface) focusing on the shallow conventional Devonian, and deeper Marcellus, and Utica plays-unconventional shale gas. Manages cross-functional activities including project planning and execution of the well drilling and completions, as well as the site facility (surface production equipment and pipelines), and construction work. Achieves gas production optimization and delivers business plan results. Responsible for addressing regulatory, safety & environments issues.

SENECA UPSHUR PETROLEUM - Buckhannon, WV

Vice President & General Manager 7/2004- 10/2011. Carry out Vice President & General Manager Duties for Seneca-Upshur dba National Grid Production and Development operations (e.g., managing staff of ~30, 1300 producing gas wells) in Buckhannon, WV. Provide technical/functional Petroleum Engineering. Develop Business Plan, including vision, scenarios, goal/objectives, strategies, operation plan, and financial plan, well works reinvestment level, and recommendations on daily gas production operations. Provide leadership – work direction (e.g., establish short & long term needs, set priorities) & provide decision making. Achieve business performance/operational excellence, and evaluate growth opportunities/ ways to create value, and deliver results. Conduct asset management & business planning, and develop strategic business plan (3 year). Improve work processes, build infrastructure (manpower, building) and systems (production accounting, engineering, geologic, land, legal, reserve reporting) for stand alone operations in Buckhannon. Provide internal & external communications, reporting, & requests. Meet environmental, safety & health expectations

EG&G TECHNICAL SERVICES, INC - Morgantown, WV *(Technical consulting firm to the Department of Energy's National Energy Technology Lab)*

Program Manager – EG&G 4/2002 – 7/2004. Provide direct supervision to a team of 12 geologist, engineers and computer programmers proving onsite multi-disciplinary engineering analysis and support to the National Energy Technology Laboratory (NETL). Provide managerial planning, control and direction to a highly experience team of professionals conducting research and analysis projects in the areas of natural gas and oil exploration and production storage, transmission, reservoir and resource modeling and geologic sequestration of CO2. Provide analysis to

NETL's senior management on issues and trends (economic, technological and regulatory) in gas exploration, production, transmission, supply and use. Directly support the maintenance of the current business base and develop and implement new business strategies for increasing the work levels in the areas of natural gas exploration, drilling and recovery areas.

CHEVRON CORPORATION – San Francisco, CA *(Major petroleum exploration and production company) – various assignments in Business Management, Planning, Project Execution, Technical Consultation, and Supervision.*

Upstream Chevron/Texaco Merger Execution Planning Manager, San Ramon, CA 1/2001- 11/2001

Reported to Upstream Merger Manager. Managing the development of execution plans for Upstream Chevron/Texaco Merger (Exploration and Production/Engineering operations for both domestic and international). Focusing on the business goal of the merger to deliver multi-million dollar cost savings synergies by combining the two companies. *Successful completed detailed Execution Plans (including major steps, tactics, responsibilities and timing for all seventeen Upstream Business Units), and started implementing actions as of Day 1. Through my management, we lead the way – pacesetter for other integration groups.*

Asset Team Manager, Malongo, Cabinda, Africa 1/97-12/2000

Reported to Operations Manager. Directs Asset Team of 40 engineers, geologists and technicians, in managing 10 offshore oil fields valued at approximately \$500-600 million. Provide all team guidance, technical mentoring, and supervision. Set financial goals and administer yearly operating budget of over \$ 1.5 Billion over the next 5 years.

Engineering Functional Supervisor and Asset Team Leader, New Orleans, LA 7/1/93- 1/1/97

Reported to Profit Center Manager. Cross-functional team leader role (team of Petroleum Engineers, Geology, Drilling Engineers, & Facility engineers). Member of the Business Team, and Petroleum Engineering Technical Supervisor, responsible for developing and implementing the Profit Center Business Plan, leading/facilitating the Field Management Team to achieve goals and tactical plans, and to achieve the Profit Center targets.

Summary of other Career Assignments, New Orleans, LA 6/80-7/93

- **Senior Petroleum Engineer**, New Orleans, LA 8/1/92 -7/1/93 Reported to Staff Petroleum Engineering Manager. Responsible for input to yearly goals, and developing and carrying out tactical plans.
- **Reserve Reporting & Production Forecasting Manager**, New Orleans, LA 12/1/89-8/1/92 Manage reserve reporting & production forecasting for the Gulf of Mexico Production Business Unit (445 Oil & Gas Fields, 8175 reservoirs, 2900 Properties, 40,100 CCRS Records).
- **Property Evaluation (Sales and Acquisition) Engineer**, New Orleans, LA 1/1/88-12/1/89 Responsible for evaluating and making recommendations on properties for sales, acquisition, and trades. This includes: selecting, field candidates, making economic evaluation, obtaining corporate approval, marketing the property through sales brochures, and handling the closing of the sale
- **Research Engineer & Technical Supervisor**, La Habra, CA 1/1/86-1/1/88 Responsible for performing research/field trial to improve oil and gas wells performance for the Corporation
- **Various Production, Drilling, & Reservoir Engineer Assignments**, New Orleans, LA 12/1/82 -1/1/86 Responsible for optimizing and maintaining oil and gas production for various fields offshore Gulf of Mexico.